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SOME PROBLEMS IN PREVENTIVE MEDICINE*

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Theoretically, all disease is preventable. A perfectly made human being, who lives in harmony with the laws of nature, ought to die a physiologic death at a ripe old age. Theoretically, then, the scope of preventive medicine is limited only by the extermination of all disease and the establishment of universal health. That this ideal state of affairs will ever be realized, no one dares to hope. That it shall be more closely approached than obtains at the present time should be the aim of the medical profession.

There is a steadily growing interest manifested both by the profession and laity in matters of public health. This interest has been long in awakening. Until recent years, national activity in hygiene has been aroused only by special exigencies such as the visitation of some devastating plague or epidemic.

The United States government was nearly one hundred years old before a National Board of Health† was established by Congress, and even then "the chief motive power in determining its action was to provide against such sacrifice of life and destruction of material interests

as rendered a recent epidemic of yellow fever a National calamity."

This Board died as a result of internal dissensions after a few years of stormy existence. The earlier State Boards of Health were organized and conducted their operations against bitter opposition. The New York State Board of Health was born after fifteen years of travail. Our own most excellent Bureau of Health came into existence under similar unfavorable auspices and has had to fight for its very existence through almost every session of the Legislature since its organization. To-day, however, there is a healthy and growing sentiment in favor of enlarging the functions and usefulness of these public bureaus and of demanding that the National Government shall take an active part in elevating the standard of National health and morals.

The present attitude of some of our State governments, notably Massachusetts and Pennsylvania, who have appropriated hundreds of thousands of dollars to the educational campaign against tuberculosis; the founding of heavily endowed institutions for the sole purpose of investigating the causes of diseases, and the means for their prevention; and the work of the

*Presidential Address at the meeting of the Michigan State Medical Society in Manistee, June 24 and 25, 1908.
†Nat'l Bd. of Health Circular, April 7, 1879.

various social and philanthropic organizations toward the solution of certain social problems that tend to lower the standard of public health, such as poor housing and food, the pollution of natural sources of water supply, child labor, etc., indicate the present status of public opinion on this subject, and augur most favorably for the future. Aside, however, from moulding public opinion, which of course is the most important thing, comparatively little has been accomplished. Our efforts have been rather desultory in character. We have attacked this problem and that. We have organized societies for the prevention of tuberculosis, for the eradication of social diseases, etc., instead of organizing our forces and concentrating our energies upon some systematic scheme by which all these problems may be worked out.

A successful solution of the public health problem requires, first, knowledge of present conditions. Second, the causes of these conditions. Third, the removal of preventable causes.

What are the present conditions? Herebefore our judgment on this point has been based largely on mortality statistics; the efforts of preventive medicine have been practically limited to the control and prevention of epidemics, the limitation of contagious diseases, and the investigation of the specific or exciting causes of those diseases that cause the greatest number of deaths, while relatively little attention has been given the more important side of the question—the individual defensive barrier against disease.

At the present time it is accepted as axiomatic that there is nothing so essential to the integrity and permanence of the nation as a healthy population. **"The family is the integral formative unit of the nation."* Whatever tends to lower the standard of health and morals of the family must in some measure weaken the whole social fabric. There are perhaps conditions existing to-day that should

*E. Mulford.

rouse every thinking person to inquire whether the average family is fitted to perpetuate a stronger or weaker race, whether the standard of National health is being raised or lowered. There are certain physical, nervous and mental affections that are commonly recognized as degenerative diseases. These are insanity, epilepsy, idiocy and imbecility, criminality, inebriety, and tuberculosis. Their victims are pronounced by scientific and public opinion as unfit to perpetuate a healthy race of people. Special institutions for each group have been constructed and maintained at public expense, partly for their treatment, but largely for their segregation. There are in the United States to-day more than two hundred thousand insane, three hundred thousand feeble-minded, one hundred and fifty thousand epileptics, an equal number of criminals and eleven million consumptives. It will be seen then that the degenerative class represents about 14 per cent of the nation's population. If to these be added the neurotic, semi-insane and the semi-responsible, such as are described by Grasset in a recent work, whose number cannot be estimated, it will be seen that the representatives of the degenerate class constitute a formidable portion of the population.

The foregoing statistics seem discouraging. It is the kind of statistics that is usually employed by the melancholy and pessimistic to whet their morbid tendencies and to form a basis for gloomy forebodings of the Nation's welfare. Fortunately, however, the outlook is anything but hopeless. There is no class of diseases that invites the attention of preventive medicine with brighter promise than the so-called degenerative diseases.

What are the causes of these conditions? Consensus of opinion places heredity as the chief cause. Its role as an etiological factor is variously emphasized by different writers, usually the most forceful language being used to express their opinions.

Thus, it is described as the "corner-stone of the edifice," "the great force which governs the world," "the cause of causes."

Far be it from me to minimize the importance of heredity as an etiological factor. On the contrary, there is no question in preventive medicine that requires more careful investigation. There is no question on which the laity should be more thoroughly informed.

There are, however, certain popular misapprehensions concerning its role that need to be corrected. In the first place, we should protest against the usual gloomy interpretation of the term. There are certain people who predict through it either the extinction of the race or its culmination in a race of lunatics and imbeciles.

In my opinion, heredity is entitled to less prominence than it receives. We are accusing it of much that should be attributed to accidental causes, to ignorance, faulty education and training, and to bad environment. Before deciding that any disease or constitutional defect is inherited, we should exclude other possible causes.

An epileptic child of an epileptic parent has not necessarily inherited the epilepsy. *Sachs directs attention particularly to the fact that "cases of hereditary epilepsy are not nearly so frequent as they are supposed to be. If we examine carefully into the early history of our cases, one finds frequently that the child has either sustained some traumatic injury to the brain or has acquired some cerebral lesion early in life."

So, too, the child of a neurotic parent is quite apt to be brought up in an environment and subjected to influences that would interfere with his normal development independently of his heritage. †Paton says that "investigation in this subject must necessarily deal with a number of indefinite factors. What is born with the individual? What happens to him after birth?"

Erroneous interpretation of statistics is easy, and writers who try to make statistics

*Nervous diseases of children. Sachs.

†Psychiatry. Paton.

harmonize with or substantiate pre-formed theories, are apt to convey to the public mind wrong impressions on this most important subject. As an example, the statistics of asylums in Michigan show the existence of insanity or some other degenerative taint in the ancestry of 35 to 40 per cent of the patients. The ordinary interpretation would be that these figures represent the percentage of cases that inherit the disease or a predisposition to it.

Koeller* examined the family histories of 370 sane individuals and found evidence of mental deterioration among the progenitors in 59 per cent of the cases.

In the second place, morbid heredity is preventable; because a vitiated constitution, able or liable to transmit its defects to successive generations, is primarily acquired from causes that are preventable. Each new generation furnishes its quota of new victims of the errors of living, to become the founders of a new race of degenerates.

The popular conception that the question of race deterioration is to be entirely or even largely solved by emasculating or interdicting the marriage of the unfit is irrational. The profession and the public must not lose sight of the fact that through errors in living, we are constantly producing the unfit, and so long as our present social conditions exist, and the present ignorance and indifference of the masses in matters pertaining to hygiene continue, we might exterminate every degenerate on the face of the earth with the certainty that the history of decadence would immediately begin to repeat itself and a few generations hence find matters about as bad as they are at the present time.

Finally, morbid heredity does not express a hopeless condition. The tendency of nature toward regeneration is well known, and if this fact were given as much prominence in medical literature as the other side of the question, the popular view of morbid heredity would be consid-

*Psychiatry. Paton.

erably altered.

*Urquhart, in considering "the question of regeneration at its worst," collated statistics showing that 38 neuropathic fathers had 240 children; 47 per cent were sane, 29 per cent insane. Forty-five neuropathic mothers had 239 children; 42 per cent were sane and 39 per cent insane." He also recorded "those most heavily burdened" and the "double heredity" shown in families of 28 neuropathic fathers and mothers, 145 children, of whom 33 per cent were sane and 44 per cent were insane." And, commenting further, says: "Even in this last class the efforts of nature toward regeneration are obvious."

This more hopeful view of heredity finds abundant support in literature. I quote the following: "Heredity is not itself certain and constant in its results." "The partisans who are most convinced of morbid heredity recognize that the transmission of pathological characteristics is not fatal." "The law of heredity is not inexorable" (Grasset). "Heredity is a prophecy of what may be and not a destiny which must be."

When we can bring to nature's aid the assistance of an enlightened public, we shall have solved the question of heredity in its relation to public health.

Primarily, then, the chief causes of decadence are: First, those conditions that interfere with healthy physical growth and development; second, faulty education and training.

For convenience, the first of these may be divided into causes incident to the period of gestation of the mother; causes incident to the birth of the individual and those that operate subsequent to birth. The first class of causes takes into consideration the emotional disturbances of the parent during her pregnancy, and all those conditions and circumstances that may affect the nutrition of the child during its prenatal development. These include fright and other emotional shocks, insufficient and

improper nutrition of the mother, as often the result of luxury as of poverty or hardship.

The causes that operate at birth are prolonged and difficult labor and the unskillful use of the forceps. Sachs attaches considerable importance to difficult labor and unskillful use of forceps as causative factors in infantile palsies, and thinks that many such conditions could be avoided by the proper management of labor.

Causes that operate after birth are legion. Improper diet, bad air, unhygienic environment and neglect during infancy not only swell the death roll of this fatal period of life, but become most important predisposing factors to nervous and mental upset later in life.

In addition to causes affecting the nutrition of the child may be mentioned those that directly affect the nervous system, such as fright, undue excitement, etc.

*Holt calls attention to the "steadily increasing frequency of functional nervous diseases among young children" and "the injury done to them ignorantly, by playing with infants, stimulating them to laughter, and exciting them by sights, sounds and movements, until they shriek with apparent delight."

It is in the early period of development of the nervous system that healthful or unhealthful influences make the most profound and permanent impression. A nervous instability once established, the child becomes an easy victim to those exciting influences that tend to the arrest or perversion of mental development. Morbid appetites are developed and there is a precocious awakening of the sexual passions, leading to masturbation and other sexual perversions. When the age of puberty is reached, the already depraved constitution finds itself unfitted for normal adaptation to the physiologic changes incident to this period.

Of equal importance to the physical development of the child is his education.

*Jour. Mental Science. Vol. 50.

*Infancy and Childhood. Holt.

If the "health of the people constitutes the nation's greatest asset," surely this fact should be made the basis of our public educational system. From the time that the child enters school he should be constantly taught and trained in those things that are essential to normal healthy development. There is no adequate provision for this kind of instruction and training in our public schools. The present status of the science of pedagogy practically prohibits the proper presentation of these subjects. Teachers of the youth are drawn from universities, colleges and normal schools, whose requirements for graduation do not include training in these branches. Their optional courses on these topics are inadequate and insufficient and comparatively few avail themselves of them.

Hence, practically none of the teachers in our public schools are equipped to give instruction in what ought to be and what is destined to become this most important part of the child's education. Furthermore, there are among the teachers of our city schools a goodly number of Christian Scientists. There are some who employ osteopaths, mind healers, and patent nostrums for their own physical ailments, and it is from this class that we expect to get intelligent co-operation in advancing school hygiene.

The concomitant development of mind and body in our public schools is of such very great importance that only those who are equipped by education to accomplish these results should be employed as teachers.

Of equal importance is the question of over-pressure in schools. "Pupils of unequal mental capacities and powers of endurance are permitted and even compelled to enter the same race and made to feel that failure means disgrace with the result that the weaker often fails and becomes a mental nervous wreck. Oftentimes the fault lies with the parents who are somewhat ambitious and who spur

their children to accomplish impossible things, failing to recognize their inability to cope with others of the same age."

Furthermore, the curricula of public schools are so arranged as to bring the greatest amount of work at a period of life when the nervous system should be subjected to the least strain. Both public educators and parents need to be impressed with the fact that puberty is one of the great danger periods in the development of the child.

The remedy is more easily suggested than applied. The solution of the public health problem must come through the medical profession. It requires, first a broader education of the profession itself in sanitary science, and a closer knowledge of social conditions and their effect on the health of the masses.

Second, the education and enlightenment of the public.

Third, suitable legislation.

The medical profession itself is not sufficiently enlightened on this subject. As suggested elsewhere, its ideas of prophylaxis are largely based on the specific or microbic causes of diseases and the important part that immunity plays is not sufficiently realized. The profession needs also to come in closer touch with existing social conditions. The Johns Hopkins Hospital began years ago to interest medical students in social service by way of frequent visiting among the poor. Last year it opened a Social Service Department in the Dispensary of the hospital. The object of it is to enable the student to see how the poor live and must meet their problems.

Furthermore, the profession needs to know more about the causes of insanity, which is one of the afflictions with which preventive medicine must deal. The State of Michigan is to be commended for the advanced stand it has taken in establishing a psychopathic ward, in connection with the medical department of the University of

Michigan for special instruction in the causes, prevention, and treatment of this affliction.

The chief obstacle, however, that confronts preventive medicine is man's ignorance of his own body, its structure, functions, and what is necessary to keep it in healthy condition. This ignorance must be met by a well-organized educational campaign. The most important step taken so far by the organized profession in this country in the interest of public health has been in the establishment of a bureau of public instruction in connection with the American Medical Association, whose object it is, as expressed in the minutes of the Atlantic City meeting in 1907, "to secure the co-operation of the press and of public educators in supplying the community at large with established facts regarding matters of general moment and public health. To supply these facts ethically, in good taste, and without the element of individual advancement. To harmonize and give the added value of combined effort to the several interests which are now working independently for the common good along medical lines. To direct this work under the auspices of the American Medical Association, thus giving unity of purpose among the workers and public expression to the aim and aspirations of the National Association. Such a bureau connected with our State Society would find a wide field of usefulness.

Public education, however, is not alone sufficient. Social conditions have for so long been adjusted to meet the requirements of commercial interests without reference to the requirements of health that we must seek the aid of rational legislation. The functions of our bureaus of health must be enlarged and more liberal provisions made for their use in carrying on a campaign of education. The State of Michigan limits the annual expenditure of its State Board of Health to \$19,000 per year, for all purposes. The State of Michigan is expending for the care of its insane

alone more than \$1,000,000 per year. Insanity is as preventable as tuberculosis. A million dollars annually expended for the scientific investigation of the causes and prevention of diseases would eventually relieve the State of a large part of the burden of caring for its dependents.

The effectiveness of legislation always depends on the state of public sentiment. Public sentiment is molded by education and not by law. The enactment of laws in advance of public enlightenment on matters legislated, is usually taken as an offensive invasion of personal rights, and often defeats the very purposes of their enactment.

The mandates "Thou shalt!" and "Thou shalt not!" are not well received by an enlightened people. As civilization advances, legislation must needs become less and less mandatory, and partake more and more of the character of rules for guidance and convenience rather than edicts for discipline and protection.

A few years ago physicians and householders were somewhat peremptorily commanded to report cases of consumption to the Health Officer, and law was cited showing authority for the request. The principles involved were correct, but the method of application was entirely wrong. This aroused the opposition both of the profession and of the laity. To-day, as the result of a well-organized campaign of education, the public is beginning to ask for suitable legislation to assist and direct its efforts in stamping out the plague.

It is not my purpose to attempt to enumerate all the existing conditions that might be improved by legislation. The point I wish to make and emphasize is that widespread opposition to the enactment of laws in the interest of preventive medicine is positive indication that further education instead of legislation is needed.

CONCLUSION.

The points I wish especially to urge are:

1. The importance of developing a sturdier race.

2. A modification of our present gloomy views of heredity.

3. A broader education of the profession, particularly with reference to social conditions.

4. The development of the bodies as well as the minds of our children in our schools.

5. More liberal appropriations and wider functions for our boards of health.

6. A co-relation of the plans of the various organizations now working independently, into one systematic comprehensive scheme of education of the masses in those things that will tend to the elevation of the standard of national health.

THE TREATMENT OF JOINT TUBERCULOSIS*

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In considering the treatment of joint tuberculosis it will be best to divide the subject into three headings: First, to consider those measures which are essential in the treatment of any form of tuberculosis; second, to emphasize and explain the procedures which have been found to best relieve pathologic conditions in joints in general, and finally, to consider the particular requirements of the individual joint.

Under the first heading we must not forget general hygiene, fresh air and proper food. I wish to emphasize this, because, while they are generally recognized as of the utmost importance in pulmonary tuberculosis, I find that in the treatment of surgical tuberculosis they are only too often neglected. We all know how important it is to live in fresh air, and yet, how few of us are there who see to it that the rooms in which we live are properly ventilated, and how few of the cases of surgical tuberculosis have all the fresh air they need.

The impression among many seems to be that fresh air is much more important in pulmonary tuberculosis, because impure air is apt to carry germs into the lungs and thus cause secondary infection. While this is true to a certain extent, it is after all not so much the pyogenic bacteria which might come in contact with the diseased lung tissue as it is the free ammonia in the air which reduces the resisting power of the patient to combat disease. Professor Moerner, of Upsala, in some very extensive and ingenious animal experiments, demonstrated this fact very conclusively several years ago.

While in pulmonary tuberculosis sanitarium treatment seems to be much more effective than home treatment, for reasons which we need not discuss here, joint tuberculosis can be treated quite as effectively in private residences and hospitals if the subject of ventilation is given proper thought and study. An open window in a room will secure change of air sufficiently frequently to render it pure enough for all practical purposes, and when all is said and done, it is much more reliable and

*Read at the Annual Meeting of the Fifth Council of District Society, at Grand Rapids, March 3, 1908.

effective than all the complicated and expensive systems of ventilation now recommended.

The question of diet is also of the utmost importance. A well-balanced ration properly prepared is the first requisite. This should consist of good meats, vegetables in season, a fair amount of fruit, and, in addition, the average adult patient should consume two quarts of good milk, from four to six fresh eggs daily; sugar should be given a little more sparingly than to normal individuals. In addition to the above, I have found a moderate quantity of good nuts and ripe olives a very pleasant change and a useful addition. If these are given, the less agreeable and often poorly tolerated fats, such as cod liver oil and olive oil, can often be dispensed with, to the great relief of many of the patients. Drugs, if any, should be prescribed if there is a distinct indication arising apart from the tubercular process. I suppose almost every drug in and out of the formulary has at some time or other been employed in tuberculosis, and all of them, except as above indicated, have been found wanting.

In joint tuberculosis, as in all the other forms of tuberculosis, it is of course a struggle between the individual on the one side and the infection on the other, and the whole plan of treatment consists in strengthening the defensive powers of the former by increasing its resisting power, and to weaken the latter as much as possible, and all the measures which I wish to propose have one or the other or both of these objects in view and have proven effective many times.

Incidentally I will not call attention to any measures the value of which is in doubt, because if in the treatment of any affection we divide our energies between valuable and useless remedies the interests of the patient are sure to suffer.

Within the last two years we have learned how to determine the resisting power of the patient to tubercular infec-

tion, and since this discovery has been made we have learned better and better how to increase the resisting power of the individual, because we have had a fairly accurate method of calculation. I refer to the study of the opsonic index. While this may not necessarily give us absolutely accurate information as to all the changes in the resisting power of the individual, it does give us an accurate gauge as to the phagocytic power of the organism, and this undoubtedly is one of the chief factors which determines the prognosis. There are quite a number of measures which increase or decrease this phagocytic power, the ones already mentioned all help to increase the resistance of the patient and to raise the opsonic index. The two factors which lower the opsonic index more than any others are pain and secondary infection, and consequently it is our duty to do everything we can to reduce the former to a minimum and to prevent the latter if possible.

To check pain by the use of opiates is only permissible in extreme cases, and then only for a very short time, because it interferes so seriously with nutrition, and good nutrition, as above stated, is one of our best weapons of defense. Fortunately we have a much more reliable and safe method by which to relieve pain in joint tuberculosis, namely, the securing of rest of the involved joint. This can practically always be accomplished by placing the muscles surrounding this joint in accurate equilibrium and then immobilizing the extremity. The exact position in which these joints should be held, in order that the antagonistic muscles shall be in exact equilibrium will be discussed when we come to consider the individual joints.

For the purpose of securing absolute immobilization I have found plaster of Paris and wheat gluten bandages very much more reliable and satisfactory than any of the expensive orthopedic appliances. When properly applied they hold the joint absolutely rigid, the dressing is light, com-

fortable and durable—the four principal requisites. It is often surprising how rapidly pain subsides when complete rest of the affected joint is secured, and this procedure alone will often cure a tubercular joint without any of the other accessories.

There is, however, one subject of fully as great importance as immobilization, and that is the prevention of secondary infection. A non-secondarily infected joint will sometimes get well without any treatment, but if it is secondarily infected it usually taxes our skill to the utmost. Secondary infection causes the ankylosis of more joints, the loss of more extremities, the death of more patients than the disregard of all the other precautions combined, and if I were permitted to give only two precautions in the treatment of tubercular joints I would say immobilize them in proper position and prevent secondary infection, and I am sure that if these two rules only were observed 95 per cent of all cases of joint tuberculosis would heal and a cure would result so far as the tuberculosis is concerned.

To emphasize this a little more strongly, let me say that up to two years ago I never saw a case of secondarily infected tuberculosis of the spine which healed permanently, and Hoffa, in his *Orthopedic Surgery* and in his lectures, states that 95 per cent of all cases of secondarily infected Pott's Disease never fully recover, but ultimately succumb to some form of tuberculosis. When we place opposite to this the fact that fully 98 per cent of tuberculosis of the spine can be permanently cured if secondary infection is prevented we will get some idea of the danger in incising tubercular abscesses. The old saying, "Where there is pus, there evacuate," has led to much mischief, because it has been applied to tubercular abscesses. Cold abscesses do not contain pus in the ordinary sense of the word, and if evacuated at all, every precaution should be taken to avoid secondary infection. Simple uncomplicated tuberculosis is one of the easiest

affections to relieve; in fact, you might almost say ordinarily it is a self-limited disease, while when complicated with secondary infection it is a serious malady and often taxes our ingenuity to the utmost. It is therefore our first duty when we are called to see a case of joint tuberculosis to consider this grave danger and to make our plans so that this can be avoided. If in spite of every precaution this complication does occur it then becomes our duty to combat it with all possible vigor, but this does not mean to cut down upon it and try to dissect out the sinus or to irrigate it with all imaginable antiseptics.

It is only within the last two years that we have had any reliable means at our command. I refer to the vaccination treatment introduced by Wright, of London, and to the injection of the tubercular sinuses by the bismuth paste recently introduced by Beck, of Chicago. As these are the two newest aids in the treatment of the more serious and complicated joint lesions I will refer to them somewhat in detail.

The Wright vaccination treatment consists in the subcutaneous injection of varying doses of Koch's new tuberculin at varying intervals, depending upon the opsonic index of the patient, and it is this careful study of the opsonic index that has made the difference in its efficiency.

Many years ago Haeckel made the observation that leukocytes and other living cells possess the power to ingest solids. Metchnikoff was the first, or one of the first, to make the observation that these cells will also take up pathogenic bacteria. He called this process phagocytosis, and contended that the leukocyte had the power of digesting the pathogenic bacteria and thus rendering them harmless to the human organism. Some observers have strongly opposed this view, contending that the finding of the microorganism within the leukocyte was purely accidental, or even going so far as to claim that the microorganism was the aggressor and en-

tered the leukocyte for the purpose of feeding upon it and destroying it.

Not much real progress was made until a few years ago, when Wright, of London, took up the subject, corroborated the observations of Metchnikoff and his followers, made several important new discoveries, and, putting all this knowledge together, made practical application of it, thus taking a tremendous stride forward in the scientific treatment of at least several common diseases.

It has long been believed that the number of bacteria each leukocyte could take up depended upon the condition of the leukocyte and upon the virulence of the bacteria in question. Wright has demonstrated that the condition of the leukocytes has little or nothing to do with their power of destroying bacteria, but that the condition of the blood serum determines the bactericidal power of the blood. He reached this conclusion after repeating the following experiment over and over again and practically always obtained the same results. Let *n* represent the normal individual and *p* the diseased or pathologic one. Take one volume of normal washed leukocytes, one volume of normal blood serum and one volume of tubercle bacilli emulsion, shake them up in a capillary pipette, seal the ends, put it in a water bath at a temperature of 37° C. for fifteen minutes, then make smears on glass slides, dry at ordinary room temperature, stain and fix with Wright's polychrom, count the bacteria in fifty typical polymorphonuclear neutrophils and you will find that each leukocyte contains on the average, say for instance, ten tubercle bacilli. The number taken up will depend somewhat upon the concentration of the tubercle bacilli emulsion. If now one volume of a patient's washed leukocytes and one volume of normal blood serum and one volume of the same tubercle emulsion is taken and treated in the same manner each leukocyte will on the average con-

tain approximately ten tubercle bacilli. If now the patient's washed leukocytes are taken and the patient's blood serum and the same tubercle bacilli emulsion and treated in the same manner, the number of bacilli that each individual leukocyte will have taken up will depend entirely upon the immunity that that patient has developed for tuberculosis. In the early stages of tuberculosis, especially if the disease is getting the upper hand, the average number of tubercle bacilli that each leukocyte will contain may be as low as two, more commonly it will be about five. Wright has introduced a new term to express this condition and would say that such a patient has an opsonic index of 5/10 or .5.

n.w.l.....n.b.s.....t.b.c.....	10
p.w.l.....n.b.s.....t.b.c.....	10
p.w.l.....p.b.s.....t.b.c.....	5

The above experiment, repeated by Wright and controlled by the other observers thousands of times, now proves beyond a reasonable doubt that the blood serum is the important factor in the production of immunity or resisting power of the patient, in that it so affects the pathogenic bacteria, or the leukocytes, or both, that the leukocytes will ingest and destroy a greater number of bacteria.

Wright now made the discovery that he could by a certain method raise this opsonic index, increase the phagocytic action of the leukocytes, thus improve the resisting power of the patient and effectually overcome the disease. This was the final step necessary in order to make all of this knowledge of practical value, and he accomplished his desired end by injecting minute quantities of a vaccine prepared from pathogenic microorganisms causing the various diseases.

Koch long ago recommended his new tuberculine to be used by subcutaneous injection, but while it was followed by brilliant results in some cases, it was

quite as frequently followed by dire failure, and not until Wright came out with his work did we have any clue to the reason why one case should react favorably and one badly. It has been proven very conclusively by Wright and many other observers that tuberculine must be given very carefully, otherwise it may do as much harm in one case as it does good in another and the only way in which the dose and the frequency of administration can be adjusted to the individual case is by a careful study of the opsonic index. If an overdose is given or if the dose is repeated at too short intervals the resisting power of the patient is greatly depressed instead of being improved, and if these excessive or too frequent doses are repeated serious results are sure to follow.

Early in our vaccination work we had two cases which impressed this fact upon us very forcibly. One was a case of very severe acne of the face and shoulders in which we gave an overdose of the vaccine, and while the patient had considerably improved before this overdose was administered she immediately had an exacerbation of the condition and became fully as bad as she had been at any previous time, if not worse; and this occurred without any appreciable rise in temperature or acceleration of the pulse, and if her affection had been a deep-seated one like a tuberculosis of a joint, we would not have known that we had given her an overdose except by a study of the opsonic index, and serious harm might have resulted from the vaccination. For the present, at least, until some other and simpler guide to the dosage can be determined, a careful reading of the opsonic index at short intervals is extremely important, as it is essential that we do not give a sufficiently large dose to unduly depress the index or to give a new dose while the index is on its downward course.

That there are many and various fea-

tures which may depress the opsonic index has now been repeatedly proven. Among these may be mentioned poor food, poor ventilation, chilling, constipation, and the shock incident to an anesthetic and an operation, and it is after any and all of these or even without them that it is necessary to read the opsonic index before a tuberculine injection is given, so as to avoid giving the injection when the index is on its downward course.

The importance of the last fact was impressed upon me by one of our first cases. A young woman with a very extensive tuberculosis of the neck was operated upon and the injections begun a week after the operation. The wound did badly, broke down in its whole extent and we did not know why this occurred until we found out that an extensive operation depresses the opsonic index for several weeks and it is not safe to start the tuberculine injections until the index has started on its upward course.

If secondary infection occurs in joint tuberculosis, either in spite of every precaution, or because the patient does not seek medical aid in time, or, what is still worse, because of a blunder of one of our colleagues, the prognosis is not nearly as bad now as it was up to a few years ago. If in one of these cases one will observe all of the precautions already recommended and bring to his aid the vaccination treatment, a very large per cent of these patients can still be relieved of their trouble.

In addition, tubercular sinuses can be made to heal much more rapidly than has been possible heretofore by making use of a method which Dr. Emil Beck of Chicago introduced several months ago. It consists of injecting the sinuses every two to four days with a sterile bismuth paste, consisting of thirty parts of bismuth and sixty parts of vaseline. This paste is injected at about 110° F. three

or four times with an interval of two or four days between the injections, and if at the end of this time the sinue has not stopped discharging, it is then injected with a paste consisting of thirty parts of bismuth subnitrate, sixty parts of vaseline, five parts of white wax, five parts of soft paraffine, and one part of 40% formaline. I have tried the method on eleven patients, one healed with one injection and two with five. The other eight are still under treatment, but have all of them shown great improvement.

In the treatment of joint tuberculosis in the past we have been very well satisfied if we have succeeded in curing the disease with the limb in good position, but with the affected joint permanently ankylosed. Since the introduction of these newer therapeutic agents we have accomplished much more. We have not only been able to effectively stamp out the tubercular process, but we are getting a larger and larger per cent of anatomical and functional cures. If all of the patients with joint tuberculosis are put under good hygienic and dietetic regime, if the joint is absolutely immobilized for a sufficiently long period of time and if the patient is properly treated with the new tuberculine controlled by carefully reading the opsonic index and if secondary infection is avoided, a very large per cent of the joints will heal perfectly and permanently and regain a very fair degree of mobility.

It has long been supposed and taught that long continued immobilization favors ankylosis if this immobilization is applied to inflamed joints. This belief is absolutely contrary to fact. I have never seen an anyklosed joint where the ankylosis could be fairly ascribed to too long immobilization, while I have seen a goodly number of ankylosed joints where I was convinced that inefficient and insufficiently prolonged immobilization was the direct cause of the ankylosis.

Let us now consider the method of

immobilization best suited for tuberculosis of the individual joint. For convenience, let us begin with the ankle joint. As stated before in the consideration of the joints in general, apart from the general considerations above outlined, there are two things upon which our attention must be especially centered; first, to immobilize the joint absolutely by some dressing that is light, durable and comfortable; second, to put the joint in that position in which the antagonistic muscles are at perfect equilibrium. In order to accomplish the first requirement, I have found plaster of Paris applied over stockinette and then reinforced by wheat gluten bandages to fulfill every requirement. A cast thus applied will hold the joint absolutely rigid and immovable for any desired length of time. It is comfortable and need not weigh to exceed 24 ounces. It is inexpensive and fulfils its requirements very much better than any of the expensive orthopedic appliances which I have ever seen. The ankle joint should be put in plaster with the foot at a little less than a right angle to the leg, because it is in this position that the muscle equilibrium is attained. The ventral flexors consisting of the soleus and gastrocnemius are very much stronger than the dorsal flexors, and unless the latter are put at a slight advantage the muscle equilibrium will not be attained, and it is upon the exact finding of this muscle equilibrium and upon the thoroughness of our immobilization that our ability to stop the pain depends. If the ankle is absolutely immobilized and the equilibrium is accurately established, muscle twitching will soon stop and with it all pain will cease. As soon as the pain ceases the patient will sleep well, eat well, gain in flesh, his opsonic index will rise and he is on a fair road to recovery. If the ankle is very painful, the patient may be kept quietly in bed for a few days, then allowed to walk with crutches,

and as soon as he can step on his foot without pain, the crutches may be discarded, a soft leather shoe placed over the cast and the patient may be allowed to resume his ordinary vocation.

If the knee joint is involved, the correct position of immobilization is an angle of about 175° . The cast should extend from the tuber ischium to the malleoli and should not weigh more than two pounds. While the knee is sensitive, the patient is allowed to walk with crutches with a high-soled shoe on the good foot, swinging the affected limb. As soon as the patient can bear his weight on the affected limb without experiencing any pain whatever he may discard the crutches and high sole and go about his business in the ordinary manner, possibly with the aid of a cane.

In the hip the position of equilibrium is 10° of abduction and 5° of ventral flexion. The cast should extend from the level of the umbilicus to a little above the knee. As a rule, it is unnecessary and often undesirable to apply extension. Sometimes if the affection is on the upper surface of the head of the femur or in the upper rim of the acetabulum, Buck's extension overnight is desirable. In the great majority of cases the extension furnished by the weight of the affected limb as the patient walks with crutches and a high sole under the good foot is all that is required. Ordinarily again, as soon as the patient can bear his weight on the affected limb without pain the crutches and high sole may be discarded.

In tuberculosis of the fingers, hand, and wrist, the cast should extend from the very tip of the fingers to within two inches of the elbow, the fingers, hand and wrist should be perfectly straight.

In the elbow the cast should extend from the wrist to the axilla and the arm and forearm should be at a right angle. In the shoulder the arm should be strapped to the chest with adhesive straps

with a small triangular pad placed in the axilla, a plaster of paris shoulder cap is now applied and held in place by a soft roller bandage and the forearm placed in a sling.

The question of how to immobilize these tubercular joints now being solved, the next important point to determine is the time. This I would answer by saying, be sure to immobilize long enough. No definite rule can be laid down, but as all of these patients can go about their business almost from the first and are not greatly inconvenienced by the dressings, wearing the cast a little longer than is absolutely necessary is no great hardship and will absolutely protect them against a relapse. In the case of a hip joint, for instance, I have made it a rule to leave the cast in place six months after I am thoroughly convinced that the tuberculosis is entirely healed.

In the case of a very painful tubercular joint, with partial ankylosis in a faulty position the question arises, what shall be done here? Let us take for instance a subacute tuberculosis of the hip joint, the patient greatly emaciated, suffering excruciating pain, the thigh flexed upon the abdomen, adducted and rotated inwardly. Shall we depend upon Buck's extension and attempt thus to slowly bring the joint into proper position? Personally I would say "No" most emphatically. Anesthetize the patient, place the thigh in proper position, apply a cast, give an occasional dose of morphine hypodermically for the first two or three days, at the end of which time the spasm will have subsided entirely. As soon as the opsonic index starts on its upward course, put him on vaccination treatment, place a high-soled shoe on his good foot, get him on crutches and out of doors into the fresh air in the course of ten days, give him good food, and the rapidity with which he takes on flesh, gets rosy cheeks instead of the hectic flush, will surprise any one who has not

employed this treatment before.

Joint tuberculosis, if thus approached, loses much of its danger to the patient

and disappointment to the surgeon and becomes one of the most satisfactory and easily managed of affections.

A CASE OF OBSTETRICS, WITH SEQUELAE*

Pyemia; Pregnancy; Eclampsia; Manual Dilation of the Cervix with Forceps Delivery; Vesico-Cervical Fistula; Operation for Its Relief with Amputation of the Anterior Uterine Lip; Atresia of Cervix Canal; Hematometra; Repeated Operation; Recovery.

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The following case is so unusual and presents so many points of interest that it seems worthy of consideration. The patient came under my care early in the present year; for notes of the case previous to that time I am indebted to Dr. Francis Duffield, who attended her in confinement:

Mrs. T., aged 35; Ipara. Family history negative. Had always been well until four years ago when she was attacked by severe pain in the kidney region of the right side. This was said by the physician who saw her to be due to "pyelitis."

The present history begins on January 16th, 1907, when the patient had her last menstrual period. It was estimated from this that the probable date of confinement would be October 23rd of the same year. In February she suffered from a severe eczema of the arms, legs and abdomen. A biweekly examination of the urine was negative save for the constant presence of pus. She continued otherwise well and on August 23rd the urine is reported as normal. On August 26th, three days later, she had a severe pain at the pit of the stomach and a near-by physician was summoned to relieve the distress. All of the following day there was a severe headache and that night the same physician was called and again prescribed. On the afternoon

of August 28th the patient was seized with a convulsion and between that time and eight o'clock in the evening, when Dr. Duffield saw her, two more had occurred. The urine was found to be loaded with albumen. An ambulance was called and she was conveyed as soon as possible to the Woman's Hospital. On her arrival there another convulsion took place, making four seizures in all. She was at once placed on the operating table and, under anesthesia, manual dilatation of the cervix was accomplished with difficulty. A presenting shoulder was displaced, forceps applied to the head and a living child delivered. The latter died four hours later.

During the rapid delivery a considerable tear of the cervix uteri occurred and the perineum was also lacerated. On account of the patient's condition the latter only was hastily repaired. There were no further convulsions nor was an unusual amount of blood lost during the delivery. On the third day following labor a dribbling of urine began from the vagina and continued during the remainder of a rather slow convalescence. The patient was also able to empty the bladder voluntarily. The urine gradually cleared up and became normal.

On account of the continuous flow of urine over the vaginal surfaces the patient's condition became very uncomfortable and distressing, and in October an operation was undertaken for the repair of the fistula. At this time the following conditions were found; the anterior lip of the cervix had sloughed and there was a

*Read at the 43rd meeting of the Michigan State Medical Society in Manistee, June 24 and 25, 1908.

constant stream of urine over the posterior lip from an opening between the bladder and the cervical canal at about the level of the internal os.

This fistula was closed by sutures, the posterior cervical lip amputated and an attempt made to bring the anterior wall of the uterus in apposition with the anterior wall of the vagina.

Following operation there was no abnormal escape of urine for twelve days; then seeping began and finally a considerable discharge took place from the original vesico-cervical lesion. The amount, however, was less than before and the general condition of the patient was decidedly improved. Six weeks later there was an attack of menstrual pain but no flow of blood, and this was again repeated after another interval of four weeks.

On January 14th Mrs. T. was once more sent to the Woman's Hospital and placed under my care.

Operation January 15th, 1908. The uterus was enlarged to about the size of a three months' pregnancy; the sound could not be passed. Following the former operation an agglutination of the involved surfaces had taken place with complete atresia of the cervical canal. The menstrual molimina of the two preceding months were thus explained; a hematometra had formed because of the occlusion of the canal.

As soon as the thin partition between bladder and cervix was separated about four ounces of thick, prune-juice blood of characteristic odor, escaped and the uterus contracted down to nearly its normal proportions. The cavity was washed out with an antiseptic solution. An attempt was then instituted to form a new cervix by dissecting up the tissues around the supravaginal portion. This succeeded in creating a fairly respectable vaginal teat. Attention was then turned to the fistula, which had now become an opening the size of a silver ten cent piece. The tissues around the defect were split and the various layers closed separately. To insure a continuous and complete drainage of the bladder a self-retaining catheter was placed and allowed to remain for two weeks. From the second operation the patient made a complete recovery, the tissues united perfectly and she left the hospital in good condition on the twenty-first day.

March 28th, 1908, the following note was made: Patient menstruated normally on February 8th and again on March 18th, the flow at each period continuing for four days. There was no

pain and she never had less discomfort. The discharge for the first two days was rather more profuse than usual but at no time was it excessive. *There has not been a particle of leakage from the closed fistula.* A slight vesical irritation still remains, probably due to the long continued use of the catheter. This is especially noticeable if patient is on her feet a good deal or becomes over-fatigued. At such times she is unable to completely control the action of the bladder and, unless the latter is emptied at once, a few drops of urine will leak through the urethra and wet the clothing. She is otherwise in excellent health.

Examination shows a small, short cervix which presents the appearance of a threequarters ring projecting into the vaginal vault. The defective portion is turned toward the scar of the former fistula which is firmly healed and seems strong. Since this time the patient has continued well. No further examination has been made.

The case just reported is both interesting and instructive in that it presents a chain of conditions rarely met with in the same patient, which follow one another in regular sequence.

If pyelitis really existed four years before the pregnancy, it had apparently been relieved by the medication employed at that time, and was lighted up to a slight extent by the advent of gestation.

When the pus disappeared from the urine, noted August 23rd, the patient almost immediately began to develop signs of toxemia, as displayed in the epigastric pain, the severe headache and finally by the convulsions. The failure of the physician first called to recognize nature's warning was reprehensible. Symptoms such as those displayed demand in the pregnant woman the promptest and most painstaking investigation, and had they been properly met the further complications which developed would undoubtedly have been obviated. Unfortunately, pregnancy is not looked upon with that expectant solicitude which its importance demands, and because the majority of cases do

well, requiring, but not always obtaining, only supervision and guidance rather than actual treatment, we too often ignore the fact, that while a physiologic process, gravidity balances on a point between health and disease, often only the slightest moment being needed to precipitate normal well-being into pathologic tragedy. We all of us are watchful and alert to grapple with the morbid, but we are too prone to forget that it is more largely within our province to avert instead of to overcome.

The os in this case being partially open, rapid dilatation of the cervix and emptying the uterus for the relief of the eclampsia was the proper method to pursue. Had the cervix been long and firm and the os rigid, the vaginal Cesarean Section might have offered better results with less danger of damage to the maternal soft parts. This operation, however, is best suited to the hand of the experienced surgeon and should not be undertaken by one unfamiliar with vaginal operative method and technique.

The neurotic wart is peculiar in that it occurs in two forms. It may manifest itself in a disseminate form on the face, arms, forearms or hands; or, it may appear as one large wart with smaller satellite ones radiating from it along the course of cutaneous nerves. A descending, labile, galvanic current will cause their disappearance.

Lichen ruber neuroticum is characterized by a linear distribution of the lesions along the course of cutaneous nerves. The itching is marked and there exists a tendency for the disease to become disseminate. An external application of resorcin in alcohol and arsenous acid internally causes the lesions to disappear.

In order to obtain anything like good results in the treatment of psoriasis it is absolutely necessary to have a clear field upon which to work. The affected skin should be cleared of all scales and other accumulations due to the process characteristic of the disease. One of the best agents to accomplish this is the well-known keratolytic remedy—the *sapo viridis* which acts not only as a remover of the scales, but is an excellent detergent as well.

Atresia of the cervix with resulting hematometra is not a frequent sequela of operations upon these parts, but is more commonly seen after difficult labor, and especially in the lower birth-canal. Since a better knowledge of the obstetric forceps has obtained, and a greater skill and intelligence in their application has been exercised, vesical fistulæ are more rarely met with. Twenty-five or thirty years ago it was not uncommon to see these cases, the result of prolonged pressure of the child's head and subsequent sloughing of the necrosed parts. Nowadays, however, this defect is almost entirely a post-operative complication of vaginal hysterectomy, especially when clamp forceps have been employed. I have seen but one instance of this kind in which the ligature was used to tie off the broad ligaments. Here it is probable that the cancerous growth had so devitalized the parts that sloughing occurred or possibly a ligature may have been drawn too tightly and have strangled the inclosed tissues.

It is not as generally known as it should be that the manner of getting rid of animal parasites of the skin is to dissolve the eggs or nits and kill the adult animals. For the former the application of green soap (*sapo viridis*) is sufficient. For the latter a liberal application of tincture of stavesacre (*staphisagria*) is quite successful. The treatment is cleanly, successful and not irritating.

It is a good plan in all acute inflammatory diseases of the integument to have the intestinal functions of the patient, insofar as evacuation is concerned, regular, as this is conducive to relieving any congestive or plethoric condition of the splanchnic system and exercises, in addition, a good effect in procuring a more rapid recovery from the superficial cutaneous process.

A chancre should never be cauterized. The use of mercurial applications is less painful, more efficient and decidedly more rational. In fact, simple protection is sufficient as the chancre is a self-limited lesion which only needs to be kept clean.

THE TREATMENT OF CHRONIC DISEASES OF THE HEART BY CARBONATED MINERAL BATHS AND AUXILIARY EXERCISES*

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St. Joseph.

The application of carbonic acid gas for therapeutic purposes can be traced to the earliest times, but exact observations of its nature and effects were not made until the seventeenth century. Mineral springs containing large amounts of this gas had served for therapeutic purposes long before the gas itself had been demonstrated, and, on account of the impressive manner in which they issue from the ground, supernatural properties were attributed to them, strange stories were propounded regarding their origin, and wonderful tales and fables were current of their curative powers.

The physicians of Nauheim, however, were the first to give a scientific description of the effect of carbonic acid water baths in different diseased conditions, especially in disorders of the circulation. Beneke in 1859 demonstrated that the mineral water bath, saturated with carbonic acid gas, is a powerful and effective stimulant for the enfeebled heart; and the brothers Schott, Groedel, and others, have since continued to work on this basis, with the result of making Bad Nauheim a world renowned resort for the treatment of cardiac disorders. Here, during the season from May to October, may be seen representatives from every country of Europe and America, attracted to the place by the fame of its wonderful thermal gas springs.

In Franzensbad, carbonic acid baths are given in the dry form, and one of the springs there, the Polterbrunnen, has been renowned for centuries, but dis-

eases of the heart do not appear to be benefited by the gas applied in this way.

At Nauheim the bath water is supplied by three sprudel springs, so highly charged with carbonic acid that they are driven to a height of fifty feet above the ground, foaming like champagne, and yielding a crystal-clear water, of a temperature of 86° F. to 94° F.

Analysis of the water shows the presence of a large number of salts, but the principal ingredients are chloride of sodium, chloride of calcium, and carbonic acid; the others being present in such small amounts that they may be disregarded.

With this water five different types of bath are given: 1. The simple brine bath, or "sool bad," in which all of the carbonic acid has been evaporated by graduation. 2. The thermal bath, in which a large part of the carbonic acid has been allowed to escape by the water being exposed to the air in large reservoirs. 3. The thermal-sprudel, in which a smaller amount is allowed to escape by storing the water in closed reservoirs. 4. The sprudel, in which the water is led into the bath directly from the springs. 5. The "strom-bad," in which by a special contrivance the sprudel water is made to flow continuously in and out of the tub.

Treatment is begun by giving the sool-bad, and, as the patient gains in strength, following with the thermal, thermal-sprudel, and sprudel in the order named. The strom-bad is seldom given to heart patients as it is too stimulating. The temperature is usually 95° F. for

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the first bath, and is gradually decreased in the subsequent baths 'till 85° F. is reached. The duration varies from five minutes for the first bath, to twenty minutes for the last, and the whole treatment extends over a period of four to six weeks, during which time the patient's mode of life in regard to rest, exercise, diet, etc., is carefully regulated.

The Nauheim baths are given artificially in a number of resorts, and in private practice, in a variety of ways. In whatever manner prepared, the essential ingredients are the chlorides of sodium and calcium, bicarbonate of soda, and hydrochloric acid, or in the place of the latter, cakes of the acid sulphate of lime.

The principle underlying the preparation of these is to start with water at a temperature of 95° F. and containing 1% chloride of sodium and 1/10% chloride of calcium, but no carbonic acid, the latter being added during the second week. The percentage of the ingredients is to be increased, the temperature lowered, and the duration lengthened, until finally the chloride of sodium reaches 3%, chloride of calcium 1%, the temperature 85° F., and the time twenty minutes.

These artificial baths, although they furnish a fairly good substitute for the Nauheim baths, are not entirely satisfactory. The gas is evolved too rapidly and subsides too quickly.

In many resorts, carbonic acid baths are given by charging the water with the gas conducted from a drum into the bottom of the tub. The objection to this method is, that the gas is not mixed intimately enough with the water.

During a visit to Nauheim last year, I was impressed with the fact that by diluting the St. Joseph mineral water, according to certain fixed formulæ, and charging it artificially with carbonic acid, I could give baths approximating closely the Nauheim, and equally efficacious, possibly more so, as the St. Joseph

water contains sulphuretted hydrogen gas, which is not present in the Nauheim. The presence of this gas, in my opinion, enhances the effect of the carbonic acid.

The main ingredients of the St. Joseph water are likewise the chlorides of sodium and calcium, but as they are present in much larger quantity than in the Nauheim, it is necessary to dilute it three times with plain water in order to approximate the strength of the sprudel bath. For the thermal-sprudel, thermal and sool-bad, still further dilutions are required, thus: During the first week, the mineral water is diluted with nine parts of plain water, and no carbonic acid added. In the second week, a dilution of seven parts is used, and a small amount of carbonic acid added. In the third week, a dilution of five parts, and a larger amount of the gas. In the fourth week, a dilution of three parts, and a still larger amount of gas.

The gas is first thoroughly mixed by agitation with plain water in a carbonator, which is provided with a guage to indicate the pressure, so that the amount used can be regulated as desired. This charged water is then conducted by block tin pipes to a U-shaped perforated tube, placed in the bottom of the tub, by means of which the water in the bath is thoroughly and continuously charged with the gas.

A bath is given daily for three successive days, with a rest on the fourth day. In some cases, however, a bath every other day is preferable. The duration of the first bath is five minutes and the temperature 95° F. Subsequently, the duration is gradually lengthened, and the temperature lowered, until, at the expiration of the course, a bath of twenty minutes' duration, at a temperature of 85° F., is given. Some cases, however, do not stand the lower temperatures well; in which case it is advisable not to reduce below 90 or 92° F.

After each bath the patient is dried with a warm towel and directed to rest for one and a half hours. If he complains of faintness, a little warm liquid nourishment furnishes the needed support.

Physiological Action.

When patients with weak hearts are placed in a carbonated bath, at a temperature of 92° F. to 95° F., they first experience a slight feeling of oppression in the chest, which soon passes off, however, and is succeeded by a feeling of warmth and well-being. In most cases the patient's pulse becomes slower and fuller, and the respirations likewise fuller and less in number. It is not unusual to have a lowering of from four to twelve beats in the bath, and later on, during the period of rest, a further diminution, with a corresponding increase of fullness. A more powerful action of the heart is induced, the pulse is more vigorous, and there is a greater fullness of the arterial system in general and presumably of the coronary arteries. These effects are produced by the stimulating action of the chlorides and carbon dioxide upon the sensory nerve endings in the skin, whereby the cardiac nerves are affected reflexly, and cause the heart to beat more forcibly and less rapidly.

The peripheral vessels become dilated and better filled and this relieves internal engorgement and lessens the work of the left ventricle. These physiological effects are dependent upon (1) the responsive capacity of the nervous system to peripheral stimulation, (2) the integrity of the vessel walls as regards their resilience, and (3) the integrity of the myocardium as a contractile mechanism, and their influence on blood pressure will depend upon whether arterio-dilatation or the increase of cardiac energy is in excess.

In the first case the blood pressure will fail; in the latter it will rise; if they

are exactly balanced it will remain unchanged. Ordinarily a plain brine bath increases the blood pressure from 5 to 10 mm. and the saline carbonated from 10 to 20 mm. If in a given case the blood pressure is diminished after a bath it indicates myocardial degeneration or advanced arteriosclerosis. Schott claims that if the blood pressure is as low as 60 mm. Neuheim baths are contra-indicated.

In addition to the chemical effect of the salts and carbonic acid on the nerve endings, the latter exerts an effect of a thermic nature causing a redness and tingling of the skin so that baths of a lower temperature may be given without chilling. This is due to the fact that the point of indifference of carbonic acid is much lower than that of water so that while the bath water causes a stimulation of cold, the gas bubbles being heated above their indifferent point cause a stimulation of warmth, and some writers ascribe a part of their good effect to this marked thermic contrast.

Another important effect that these baths produce is the change in the quality of the blood, the hemoglobin frequently increasing from 5 to 20% and the red corpuscles from 3 to 10%.

With better blood state of course improved nerve tone must follow but aside from this, the baths exert a tonic effect on the central nervous system, by reflex stimulation, and induce a feeling of well-being, as well as an increase in all the nutritive processes.

Exercise Treatment.

In addition to the baths, a system of graded exercise treatment is employed. I begin with a stroking massage, the effect of which is to produce a fullness and slowing of the pulse, in consequence of the greater ease with which the flow of blood takes place through the venous capillaries. This massage should be made from below upward toward the

center of the body, and from the head downward. Great care must be used in applying abdominal massage, else in some cases cardiac depression is produced.

This massage should be given daily for from 6 to 10 minutes at the outset to 20 minutes or half an hour. It is best given several hours before or after the bath, and should be followed by an hour's rest.

Respiratory exercises are of great importance, as they cause a better aeration of the blood, and this has a stimulating effect on the cardiac nerves and the heart muscle. They also cause an improved aspiration by which the venous return is facilitated.

After a week or ten days of massage and respiratory exercises, resistance exercises are given. These consist of voluntary movements by the patient of flexion, extension, adduction, abduction, and rotation of the extremities and trunk, which are carefully resisted by an attendant trained to the work. The attendant is instructed to observe carefully the rate of breathing and the pulse and to stop the movements at the onset of rapid respiration, palpitation or perspiration. Then after a short rest they may be resumed. Resistance should be made in such a way as not to constrict any part of the body, and should be adjusted to the patient's strength. As the course proceeds the energy of the movements and the force of the resistance may be gradually increased. The patient should be taught not to hold the breath, but to breathe regularly while the exercises are being given. The same movement is not to be made twice in succession, and each one is followed by a pause. All movements should be made slowly and steadily and each exercise should bring into play new groups of muscles. No movement should be used which carries the hands above the level of the shoulders and particularly

not above the head in cases where the right ventricle is much distended. In heavily built and stout persons certain of these movements may produce intermittent heart action, in which case they should be omitted. Frequently eight or ten minutes of stroking massage given after twelve or fifteen minutes of resistance exercises has a soothing and yet stimulating effect on the patient.

The succession and combination of massage, respiratory exercises, and resistance exercises, and the length of time which each form is to receive, must be determined by taking into consideration all the elements of the case. Ordinarily from ten to thirty minutes is the time allowed, and they should not be given in the same forenoon as the bath.

Resistance movements, by contracting the muscles, drive on the venous blood, cause a greater afflux of arterial blood to the part, and promote deeper and better respiration. The direct influence of these factors is to enable the heart to act more forcibly, yet more quietly, to contract down, and tend to overcome cardiac dilatation.

When the heart has regained a sufficient degree of strength the patient may begin to take active exercise tentatively; first, a short walk on the level, the length of which may be increased from day to day; always being careful to avoid fatigue.

Later on he may walk up a gentle incline, at such a pace as not to cause a labored or rapid action of the heart, and gradually inclines of a greater length and steepness are surmounted. Stair climbing is also a useful mode of exercising. The patient is taught to mount at first not more than two, three or four steps, resting long enough on each step to take a few deep breaths.

In many cases, however, exercise on the level is all that should be attempted.

Dietary Rules.

In regard to diet, it is impossible to

give rules to suit each individual case. The age, habits of life, and constitution of the patient, must be considered. Excessive and ill-applied severity may undermine the patient's strength. Nevertheless the diet is a matter requiring careful attention.

Owing to passive congestion of the abdominal organs, leading to chronic catarrh of the stomach and intestines, and alteration in the biliary and pancreatic secretions, cardiac patients are usually disturbed by fermentative dyspepsia, even after the taking of the simplest and most easily digested food. Hence farinaceous foods, sugars, and fats, must be restricted, and given in the least objectionable forms. Most desserts and sweets should be prohibited. Fruits may be allowed if ripe and fresh. Most of the green vegetables are well borne; and in the majority of cases a generous mixed meat and vegetable diet is essential. Meats should never be fried, and should be served without sauces. Fresh fish and eggs are allowed. Alcohol should be prohibited, except in the case of older patients, who have been used to wine or other stimulant all their lives, when a tablespoonful of whisky, or a glass of wine may be allowed. A small cup of coffee, tea or cocoa, when not made too strong, and well diluted with milk, is not objected to. Milk is especially recommended in cases of arterio-sclerosis, and in cases in which renal complications exist.

The amount of fluid ingested should be restricted, especially at meals, when not more than four to six ounces should be taken. On this account soups are usually left out of the diet. The total amount of fluid in twenty-four hours should not exceed three pints, and in cases of dropsy, half this amount.

As digestion and assimilation are both slow, food should not be taken at short intervals. Usually five hours should elapse for the complete digestion of one

meal before another is taken. In cases where palpitation and dyspnea develop, it is better, however, to eat small quantities, and take four or five meals a day; provided food be given which is digested easily and quickly. The feeling of faintness and gnawing at the epigastrium which is often troublesome between meals, may be relieved by a small cup full of bouillon, or weak tea. In cases of fatty heart a diet suited to obesity is called for, but that is too broad a subject for the limits of this paper.

Indications for Treatment.

These baths are indicated in all forms of functional cardiac disorder, myocarditis, fatty heart, angina pectoris, and in all forms of loss of compensation due to valvular disease, or dependent on muscular changes. They are especially valuable in weakness of the heart muscle due to bodily or nervous overstrain, toxic poisoning from alcohol or tobacco, or following influenza, diphtheria, or other infectious diseases.

They are contra-indicated in aneurism, advanced cases of arterio-sclerosis, and according to Groedel and Babcock, they should not be used in cases in which the compensation is entirely lost, but Schott and Bezley Thorne assert the contrary. I am inclined to agree with the former to the extent that rest in bed and measures to relieve the dropsical condition should be employed before resorting to the baths and exercises.

Prognosis.

Provided, the treatment has been carefully directed and faithfully carried out, we may expect to find improved contraction of the heart muscle, and in cases of dilatation a diminution in the size of the heart. Frequently the area of cardiac dullness is diminished by from three-quarters of an inch to an inch and a quarter or often more.

There is also a notable diminution in the dimensions of the liver, and the kidneys are relieved of congestion as shown by increased diuresis. The lips and skin assume a healthier color, the breathing is slower and deeper, and the patient gains in bodily strength and vigor, becomes more cheerful in mind, and is able to exercise without discomfort. These good effects are continued after the course of baths, provided the patient is impressed with the fact that moderation in all things is the only safe course for a cardiopath to pursue.

In the advanced cases, after a rest of a month, the patient should take a second course.

Conclusions.

No form of treatment which is applied to chronic disease, and often apparently hopeless cases, can show a larger number of improved patients, whose energy has been restored, and whose lives have been prolonged for a number of years.

In functional cases they are usually curative. In valvular disease, and in the case of the different degenerations of the heart muscle, a cure is not to be expected, but if the lives of these patients can be made more comfortable and their existence prolonged, much has been accomplished, and carbonated mineral baths deserve a prominent place among our therapeutic resources.

DIET AND DIGESTION*

F. J. GRONER, B. S., M. D.,
Grand Rapids.

In this age of wonderful strides in mechanics, physics, electricity and all other sciences, dietetics is just beginning to keep pace with the rest. In improving every thing else, man has in a great measure lost sight of himself. One thing is absolutely certain, the technical knowledge we have is very often forgotten. Appetite, inflamed and irritated stomachs are given full sway. No dietary is consulted. The stomach is loaded with rich foods; very often the very hardest ones to digest; washed down with hot coffee, and iced water. A few hours later when the stomach is partly filled with undigested and fermented food, another meal is hastily swallowed. Nothing is so utterly astounding as the weakness and folly of the human race. Herbert Spencer says:

"The first requisite for success is to be a good animal." Holmes tells us in order to make one we will have to begin four or five generations back.

The ancient philosophers located the soul in the stomach; later it was located in the heart. After Harvey and others demonstrated this organ to be nothing but a pump, the soul was located in the cranium. I am inclined to think the ancient philosophers correct. We were diligently taught that our thoughts and morals were simply an index of what we ate. This of course must be modified by the condition it passes into the circulation; whether pure or mixed with toxins. It is truly said that dyspepsia and religion do not go well together; but good digestion and holiness are twins. A holy man is a healthy, whole man, with all the functions in good order.

*Read at the 43rd meeting of the Michigan State Medical Society, in Manistee, June 24 and 25, 1908.

Dyspepsia is the remorse of a guilty stomach—a physiological sin. Good digestion is more to be desired than great riches.

How are we to avoid this American curse—dyspepsia, neurasthenia and premature old age? It is said that most people dig their own graves with their teeth. They eat too much, eat too rapidly, eat the wrong things, and at the wrong time. Unless a person have a pressing engagement with his own funeral, what sense is there in hurrying with his meals?

That a plain, simple, mixed diet in not too great a quantity is conducive to good health and longevity, the history of the human race proves. Over-indulgence in rich foods causes an abnormal desire. The quick lunch counter menu which busy men rush to, bolt down a hasty mess of gastric irritants, then return at once to business, overworks the stomach, and leads to gastric fatigue, which is serious in its ravages on general health. Man does not succumb so often from overwork of the brain, as from overwork of the stomach. The chef and housewife are ignorant of the laws of dietetics, especially that pertaining to the composition and preparation of food. The government agricultural department teaches farmers how to feed their hogs and cattle. Should we not prescribe rational diet for our patients?

Dietetics as a prophylactic against, and as a partial cure for disease has been sadly neglected in the curriculum of our medical colleges, and in our medical literature. Think of the whole subject of dietetics disposed of in two or three lectures in a great university. We were advised that "a proper and restricted diet be recommended." Very good; but we lacked the special training necessary to recommend it. We were taught that "one man's meat is another man's poison." In practice we were confronted with the proposition,

"What is meat, and what is poison to a given man?"

The labor of the true physician is not merely to relieve suffering, and cure disease. Prophylaxis and the general welfare of the race must be considered. Such a betterment and uplifting of the human race is to be called philanthropic. No movement has ever been inaugurated for the uplifting of man which has shown results commensurate with the effort expended. It is ignorance of the laws governing our physical existence—creation, birth and living, that makes reform movements necessary. We must deal with causes. The body to a great extent controls the mind, and therefore the conduct. We are animals without the governing instincts of brutes; and so limited in reason and knowledge, as to be practically unable to regulate conduct. A man born under proper conditions, and given correct knowledge of living, will need neither moral suasion nor prohibition to keep him from the liquor habit; nor so far as this world is concerned, will he need any reform movements, or dread of future punishment to make him a good citizen.

The use of tobacco, alcohol, opium, cocaine, chloral and other stimulants is not due to the victim's taste so much as an overwhelming desire for peace of mind. We must teach people that their ills do not come from God or Adam, or Nature, but are mostly self-inflicted; or come from their ancestors. The scriptural text is that the iniquity of the parents shall be visited unto the third and fourth generation.

No language can sufficiently emphasize the fact, that there is nothing of so great value to us as knowing how to live. And to know what to eat comes first. Not all ailments come from improper food; some are hereditary, and some are thrust on us, as the infectious diseases. If we were to eat the right kind of food, in proper quantity, prop-

erly prepared and at proper intervals, sickness would scarcely be known. Improper food and eating cause indigestion, this in turn causes auto-intoxication; this retards moral and intellectual development; causes a craving for stimulants, drives people to crime, makes labor a burden, where it should be a pleasure; causes life to be partially or wholly a failure, makes individuals a burden to society, and is the cause of most of our insane and suicides.

Sir Henry Thompson says: "I have, for some years past, been compelled, by facts which are constantly coming before me, to accept the conclusion that more mischief, in the form of actual disease, of impaired vigor, and of shortened life, accrues to civilized man, so far as I have observed, in our own country and through western and central Europe, from erroneous habits in eating, than from the habitual use of alcoholic drinks, considerable as I know the evil of that to be."

Give us more good cooks and there will be fewer children with stomach aches, fewer people with torpid livers, less demand for bitters to tone up the stomach, fewer men seeking saloons to drown their dyspepsia; and doctors and funeral directors will grow poor.

Americans grow old early and die young, and one of the prime causes is that their home cooking is not fit for man or beast. Using statistics in the rough, we say one-half of the children born, die before the fifth year. We find among the chief diseases causing this frightful mortality are bowel troubles and convulsions from bad food. Abernathy said, "One-fourth of what we eat keeps us. The rest we keep at the risk of our lives."

Three-fourths of the so-called heart diseases are merely disturbances caused by decomposing food in the stomach and intestines. Heart failure and "acute indigestion" (the new cause of death), can

be traced to the same cause. Also a host of lesser diseases. The bodily metabolism, particularly as affected by diet, is a factor not to be lightly considered in the presence of any morbid state, while it is an influence of primary importance in the management of a group of diseases of which obesity, diabetes, gout, lithemia may be viewed as typical examples; and it is of scarcely less weight in connection with diseases connected with or followed by wasting.

Foods have certain chemical and physical properties that may often be utilized with therapeutic advantage. It is true that all individuals do not react alike to the same articles, as they do not to the same medicinal agents. Accordingly allowance must be made here likewise for personal idiosyncrasy.

Physicians ought to know the qualities and properties of ordinary foods, and the best methods of preparing them. It is well to know what is suitable under different conditions, and what foods have particular value as remedial agents.

We have three ways of computing proportions of proteids, fats and carbohydrates. One consists of using the tables of percentages by weight. Second, Kellogg's tables which give the number of calories in the form of proteids, fats and carbohydrates per ounce of each kind of food. Third, calories per cent of Fisher. He takes as his starting point, not a unit of weight, but a unit of food value, called a "standard portion" of each kind of food. A "standard portion" is the amount of food which contains 100 calories. From Fisher's tables we can prescribe exact portions of food principles, the same as food for infants, or exact doses of medicine.

There have been some recent advances in the problems of Bio-Chemistry. We will have to give up the idea that digestion is simply a chemical process that can be carried on in a test tube. All

writers have stuck very close to the knowledge given us by Dr. Beaumont in his experiments on Alexis St. Martin at Mackinac Island, from 1825 to 1836. In the light of our present knowledge we will have to depart from the ideas of our old physiologists and text books. Digestion in the human organism is carried on largely by the action of peculiar principles, ferments, secreted by the glands connected with the alimentary canal. These ferments are very powerful, in that they can effect profound changes in the food stuffs. Changes which the chemist can only imitate by processes which would destroy the human organism.

Organic ferments are very delicate bodies, which can only exercise their action under favorable conditions, and which are inhibited or destroyed by the slightest departure from these. Cannon has shown that there is far less general movement of the contents of the stomach, after a full meal. Volhard's discovery of a new gastric lipase, is another addition to our knowledge. Laquer found this substance active enough to convert a large part of the emulsified fat into fatty acids and glycerine. The discovery of this fat-digesting enzyme is of increased significance in the preparation of food for assimilation. The chief difference between our views of pancreatic digestion and that of a few years ago centre around the discovery of enterokinase, by Schepowalniko, and of secretin by Starling. A minute amount of enterokinase will render active a relatively large amount of trypsinogen, leading to the formation of trypsin, which is absent in pure pancreatic juice fresh from the duct of Wirsung. Secretin, discovered by Bayliss and Starling in the mucosa of the duodenum, seems to have the function of stimulating pancreatic secretion. The discovery of the enzyme eripson, by Cohnheim, in 1901, has helped to account for some of the

anomalies of proteid digestion and absorption. Its combined action with that of trypsin reduces a soluble proteid to its cleavage products in a time more closely resembling the speed of digestion in the body than is possible with trypsinogen alone. The admission of a breaking down to the fundamental units of structure during the process of digestion makes it apparent how a dog can build up typical dog proteid, a fowl its characteristic tissue, a man, his, from the identical diet. We can understand, too, why dog or human serum remains uniform in composition, no matter what the diet. We have simply to assume the two propositions of complete cleavage and re-synthesis, to put the whole question of proteid absorption on a reasonable basis. The work of Abderhelden and his pupils, from another standpoint, presents absolute evidence of proteid synthesis. Recent work by Kauffmann and by Wilcox and Hopkins bears indirectly on another phase of this same question, viz.: that there is much evidence to show that proteids are made in the animal organism from the deep-seated cleavage products of proteid digestion. The intestines exercise an excretory function as well as an absorptive one, more particularly in the case of metallic salts.

Recent investigations of metabolism, its phenomena and variation, by numerous observers have laid a foundation for study that still means wonderful advancement in our knowledge of physiological and pathological processes. The researches of physiological chemists and bacteriologists are shedding wonderful light on the vital processes in health and disease. The increase of indican in the urine is certain evidence of constitutional toxemia, the result of intestinal auto-intoxication. Until the profession grasp the extreme gravity and recognize the frequency of this condition and learn how to correctly interpret its true im-

port, there can be but little progress in its successful management. As the magnitude of the problem is fully apprehended and intelligently and diligently investigated there will be unquestionably great advances made in the prevention of the more chronic and incurable pathological conditions. Both acute and chronic diseases will be less frequent. The health and happiness of the human race will be greatly augmented. Longevity will be further extended, and mortality progressively lowered.

The intestinal tract introduces into the body every substance except oxygen; and before these substances are introduced it elaborates them. A disturbance of its functions must exercise a most pernicious influence upon the cells of the entire body. It has been demonstrated that ptomaines and toxins produced in the alimentary canal through the fermentation of food will cause vertigo, disturbance of vision, depression, headache, hallucinations, insomnia, numbness of limbs, palpitation, intercostal neuralgia, acne, eczema, urticaria, albuminuria, peptonuria, loss of physical and moral energy, etc., etc.

Sclerosis of the liver, kidneys and other organs formerly blamed to alcohol are nothing but the result of toxemia. Otherwise how would children and temperate people be subject to these troubles like those who use spirits? The person who is intemperate in drink is most likely to be intemperate in eating and other things; and more likely to have a disordered intestinal tract.

Physicians are just beginning to realize the importance of auto-intoxication in disease. Opsonic treatment is an attempt to increase the power of resistance of the body to attacks of pathogenic organisms. Impaired digestion and assimilation, resulting in auto-infection, is the most common cause of the bacterial invasion. The cells are handicapped; they struggle to renew themselves, but

from the persistent mal-nutrition are compelled to surrender. We hope to cure by antitoxins; but mainly have to rely on the phagocytes and the antibodies manufactured by nature herself. The question now arises whether our past empirical treatment of disease did any good? If it did, did it not do so by raising the opsonic index? We attempt to sustain the natural power, increase or diminish the secretions, and prevent the entrance of germs—neutralize toxins and let nature do her benevolent work.

Recent investigations in this field places us in command of the means employed by nature for determining the activities of the functions of the body, *i. e.*, drugs or "hormones," which effect their purpose and are then destroyed. We overcome disease by embracing the functional activities of the para-thyroids, adrenals and other ductless glands, and thus cause an excess of "Auto-antitoxins" in the blood and phagocytes. This increase of bacteriolytic and antitoxic property is the real "*vis medicatrix naturæ*." No physician can afford to ignore the latest physiological research, as an explanation of our therapeutics. In closing let me go back to diet. This certainly demands more attention from us as physicians. Physicians should impress on the public and the individual that they eat too much, especially meat. I have pointed out the way of practical application. Gastronomic intemperance is not only interesting pathologically, but economically, and physiologically. I do not believe in the fashion of dieting. Think of that class of health-book reading, always talking, forever dieting people, who never eat half enough, and whose lack of health is a perpetual agony and wonder to themselves. I do not approve of that still larger class who are anaconda-like in their table habits. They forget that the sense of taste lies only in the mouth, and that it may call for more long after the stomach cries

enough. With this as with many other things there is a happy golden mean. The constant meditation that this or that is giving great disturbance, necessarily causes indigestion by suggestion. "Preserving the health by too strict a regimen is a wearisome malady." Dieting is a pernicious habit, and should not

be forced on those not actually ill, and who are discreet in their feeding. Laughter and happiness of mind actually improve digestion, enrich the blood and induce good health. Shakespeare says, "Now good digestion waits on appetite, and health on both."

Short-lived Doctors.—A medical contemporary, says *The Practitioner*, recently drew attention to the fact that doctors are a short-lived class of the community. Laymen were naturally surprised. Their view presumably is that the days of doctors should be longer in the land than those of other people because they know better than their patients what to "take" when they feel indisposed or are in the way of infection. Longevity, however, depends far more upon the manner of a man's life than upon the drugs which he swallows; and it is the doctor's misfortune that the exigencies of his calling often make it impossible for him to practice the hygienic doctrines which he preaches. *Obsta principiis* is one sound maxim on which it is specially hard for him to act. He cannot afford to lay up and nurse himself for trivial ailments, but must often be out attending to his patients in spite of a general feeling of malaise. His night's rest may often be broken though he knows that seven hours sleep is the ideal. He may have to take his meals irregularly, though he is well aware of the virtue of regular habits, or to rush out to an urgent case in the middle of his dinner, though he is always warning his patients that that way lies indigestion. Moreover—if he is a general practitioner—those long holidays which he is fond of proclaiming to be essential are very seldom for him. All these disadvantages count for more in the long run than his acquaintance with the quickest means of relieving a headache or soothing a catarrh; and the sum of the whole matter seems to be that the doctor, who made his own health his chief concern, would have to retire from practice in order to attend to it.

A case of carbuncle must never be treated by radical measures until a microscopic examination confirms the diagnosis. Some furuncles are so large and painful as to suggest carbuncle.

The detection and demonstration of the tubercle bacillus in lupus vulgaris is a more than usually difficult matter. These bacteria are but sparsely distributed in the tissues and secretions of lupus and many examinations may be made before they are found.

Psoriasis is daily approaching nearer and nearer to the line in which is included the list of curable skin diseases. The modern internal treatment will put off a possible relapse for six or eight years, and when it does occur it easily yields to a short treatment to remain absent another long term of years.

The removal of moles which occur on the face should not only be done but should be urged by the physician as they are liable to become epitheliomata when the patient grows older. They should be destroyed by means of the electrolytic needle, care being taken not to produce a scar.

Warts are of so many varieties that a volume could be devoted to their consideration. Neurotic warts are easily caused to disappear by the use of a descending labile galvanic current, and the results appear truly magical. The current should not be stronger than eight milliamperes.—*Am. Jour. Dermatology*.

The catheter is not supposed to work its own way. It is still to be guided and not placed among the automatic drills.

A question which is often asked is why musicians and druggists have long hair. The doctor with long hair believes in yarbs and has little use for calamey and quinan and always carries his collection of dried roots and grass with him. He learned his business from the medicine man.

One of the peculiar errors common to all neophytes in the treatment of genito-urinary diseases is to promise to cure a gonorrhea in a week. It can never be cured, and is sometimes not stopped in two years.—*Am. Jour. Surg.*

The Journal of the Michigan State Medical Society

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AUGUST

Editorial

The New Era in Medicine is the title of an address given recently before the Florida State Society by Dr. J. H. Hodges, of Gainesville. By the "new era" the writer means the awakening of interest on the part of the profession, interest both in itself and in public affairs, which has been manifest by the activities of county and state societies, under the leadership of the American Medical Association. In this address the author so forcefully brings out the things for which the American Medical Association stands, that parts of his paper are worthy of emphasis. These ideals of our national society are well known to most of us, yet it is well now and then to pause and indulge in a little introspective research, to examine ourselves, to take stock as it were. Somewhat in this line was the address of Dr. J. C. Bloodgood at our own state meeting, under the title of "The Larger Field in Medicine," and of Dr. W. S. Thayer in the oration on medicine at Chicago, the title of which was "Relations of the Physician to the Public: Duties and Opportunities." Both of these addresses should be read by every physician.

Both Doctor Bloodgood and Doctor Thayer emphasized the idea that the

physician is, and must be, more or less of a public character. If he shirk the responsibilities of his position and hold himself aloof from the burning questions of the day, he is not only neglecting his opportunities, but he is failing to do his whole duty to his profession and to his community. It is his duty to take an active stand in the education of the people along hygienic lines, to fight unservedly ignorance and misconception, to make practical for every day life the lessons which science has taught him, to do, as well as to think, even to get into the legislature and give the law makers the benefits of his knowledge, if need be. It is also his duty to himself and to his fellow practitioners to study the problems which confront both the individual doctor and our profession as a whole. These problems are many and it is on the correct solution of them that the future of medicine, or at least the practice of medicine, in America depends.

Modern conditions are such that comparatively little can be accomplished by the individual. We are far from belittling the influence which even one strong, fearless, upright advocate of these things can do in his section, yet the influence which can be exerted in any one county, for instance, increases as the square of the number of workers. Two such bulwarks of the truth can do four times the good which one can accomplish, three such can multiply results by ten, for with each addition, opposition melts away, local jealousies disappear and encouraging returns come in. It is through organization, therefore, that much has already been accomplished and through organization that great results will come in the future.

To revert to the new era, as exemplified by the great work of the American Medical Association, let us enumerate the lines along which this work is spreading. They are given by Doctor Hodges as follows:

(1) A higher standard of medical education.

(2) Adequate and uniform medical laws in all states.

(3) Honesty and business integrity in those who supply physicians with drugs.

(4) Enlightenment of the public on those essential principles of medicine which relate to sanitation and the preservation of public health.

(5) For honesty and square dealings everywhere, and for aiding the individual doctor in the struggles which confront him.

These aims cannot well be classified, as has been tried by some, into two divisions, namely, efforts to upbuild the profession and efforts to enlighten the people, for efforts put forward in either direction react in the other. We cannot improve the standard of the profession without benefitting the laity, we cannot educate the people without ourselves receiving the fruits of the labor.

It is for advocating these measures, measures which every honest physician cannot but indorse, whether or not he be a member of the various societies, that the American Medical Association has been assailed. It has been bitterly criticized, and by whom? By him who somehow is hurt by the reforms which are advocated, be he connected with some inferior medical college, be he profiting by unwholesome medical laws, be manufacturing or advertising nostrums which are being exposed, be he financially injured by the awakening of public sentiment on sanitation, or be he in danger of losing prestige from the more general application of the golden rule. Perhaps the most frequent and the most unjust criticism which has been made, and made repeatedly, is that our county, state and national bodies are controlled by a small number of men, a clique, who are in for what they can get out of it. In a few rare instances

throughout the country this may possibly be so; indeed, considering the large number of societies, it would be surprising were it not occasionally true. That such is the case in any county society in Michigan of which we know, of our state society, or of the American Medical Society, we emphatically deny. True it is that a few are prominent, just as there are a few prominent individuals in every government, in every secret society, in every church, and in every walk of life. It is not, however, true that these men who are conspicuous, do not welcome new blood; they not only welcome it, but they beg for help from everyone, both in and out of the society, everyone who can aid in elucidating the vexing problems and assist in bringing to a fruition those efforts which they believe are for the best interests of the profession and the people at large. At our last annual meeting there were numerous delegates active in the affairs of the society, who have never taken part before. It was the most inspiring and encouraging feature of the Manistee meeting.

There are still some of our members who believe that a county society exists merely as a place where papers are read and discussed. Let us not underrate the scientific side. It is surely the most important feature of county society work, but it is not the only feature. Each county society has, besides its scientific work, important duties along the lines advocated by the American Medical Association. The latter is only the great directing force; in the former, the real work must be done, the impetus given, the encouragement supplied.

Many already understand these aims and ideals which dominate the new era of medicine. Many do not fully comprehend them. They will be discussed one by one in this department during the rest of the year.

The County Secretary is the one individual in every community who has the best opportunity for carrying out these plans. It is to him that the profession looks for the initiative in making the local organization a real power in his county. He can accomplish much in making his society worth while. If not, he is not the right man for the place, and the members should see to it that another is chosen. Among every dozen doctors, there is one who has the peculiar talents necessary for a good secretary and changes should be made yearly until the right man is found. Once a good man is discovered, he should be kept in office as long as his loyalty and enthusiasm remain. Don't choose a man for secretary because he is the youngest, choose rather the man with a deep love for his profession, a love engendered by several years, at least, of service; don't choose a man who has much leisure, simply because he has time, for it is always the busy man who does things. Young men, and men with leisure often make good secretaries, but it is rather *post hoc* than *propter hoc*, that they are efficient.

Among the secretaries of our Michigan societies are many most capable and hard working officers. Many of those now in office are responsible for the excellent condition of the majority of the local societies and the state association. Many have obstacles to overcome which are well nigh impregnable. Conditions in one county differ from those in adjacent counties. Problems in one section are different from problems in another. Nevertheless, underlying principles are the same the state over, and the Union over, and a study of these principles and the results achieved cannot be but immensely helpful to every man who has medical organization at heart.

With the idea of bringing the county secretaries together and discussing practical points in the management of the

local branches, a meeting is to be held in Detroit in the early fall. A committee which has been appointed to arrange for this has issued the call, which will be found on another page. Everyone interested in medical organization is invited. The secretaries are urged to come, not only because a profitable, as well as a good time, is promised, but also because a secretary has a responsibility which he assumed when he accepted his office. Even at considerable sacrifice to himself, it is his duty to do what he can to build up his own society. If he feels that he is already doing all that can possibly be done, that his society is as great a success as it can be, then he owes it to the rest of the state, to come and teach others wherein his success lies.

Book Notices

Practical Life Insurance Examinations. By Murray Elliott Ramsey, M. D. J. B. Lippincott Co., 1908. pp. 231.

A new volume on the subject of life insurance may be welcome to many men who are entering the rapidly specializing field of insurance examinations. Dr. Ramsey's book is brief, well written, and illuminating. It might well omit much of diagnosis, which can be found in any good book of general medicine, and include more statistical material, which is the examiner's chief reliance. The peculiar services of the insurance physician demand certain knowledge and points of view that are not often realized by the ordinary physician.

Medical Guide and Monograph Series. Golden Rules of Dietetics. The General Principles and Empiric Knowledge of Human Nutrition; Analytic Tables of Foodstuffs; Diet Lists and Rules for Infant Feeding and for Feeding in Various Diseases. By A. L. Benedict, A. M., M. D. Buffalo, Medical Book and Publishing Co., C. V. Mosby, St. Louis. 1908. pp. 407. Price \$3.00.

This book aims to present in compact form the present knowledge concerning diet, both in theory and in practice. It is neither purely empirical nor purely theoretical, but a combination of

both, in readable form and suitable arrangement. It first treats of the subject in general, from the point of view of foodstuffs, the bodily requirements, and normal conditions; then the diet appropriate for special diseases is taken up. There are numerous tables, recipes, and diet lists, with practical suggestions that usually are known only by nurses and chefs, but which ought to be familiar to every practitioner. The book is decidedly useful.

State Board Questions and Answers. By R. Max Goepp, M. D., Professor of Clinical Medicine at the Philadelphia Polyclinic; Assistant Visiting Physician to the Phila. Gen'l Hospital. W. B. Saunders Co., 1908. pp. 684.

This work will be found invaluable in preparing for State Board examinations. Dr. Goepp has taken great pains to collect the many questions asked by Boards of the various States, eliminating all duplications; so that this work completely covers the questions on all subjects likely to be asked in any State Board examination or in any examination for college, hospital, army, or navy appointments. Further, the questions *with their answers* are so arranged and classified under subjects that the prospective applicant can acquire the knowledge on any branch with the least difficulty.

Consumption, Its Prevention and Cure Without Medicine, with Chapters on Sanitation and Prevention of Other Diseases. By Chas. H. S. Davis, M. D., member of the New Haven County Medical Society, Connecticut State Medical Society, American Health League, Etc. Second Edition.

A syphilitic tubercle should not be cut out. The proper use of mercurials internally and locally will cause their disappearance without leaving a scar or any other indication of their existence.

The patient who is scientific is a bore and the one who thinks he knows medicine is a pest.

Electricity is a magic method in the eyes of the laity; and, in the eyes of a great many physicians it savors of the unknown.

The genito-urinary surgeon is mighty in the land; so is the prostate.

Revised and Enlarged. 12m. 216 pages. Cloth. Postpaid, \$1. E. B. Treat & Co., Medical Publishers, New York.

While so many works on tuberculosis theorize upon the subject, this one shows how it can be treated, and in the large majority of cases cured, without the use of drugs and largely through the patient's own efforts. The author emphasizes the vital necessity of an open air life and a rational system of diet. It is a practical treatise on the subject and leaves nothing to be desired, as all the essential points are thoroughly covered. The present edition, aside from containing additions to several chapters, also has added chapters on Bovine Tuberculosis, The Use of Milk, General Tuberculosis, Marriage and the Offspring, and also gives a list of Tuberculosis Sanatoriums in the United States.

New Edition of Gray's Anatomy.

The announcement of a new edition of "Gray" is of primary importance to everyone concerned with medicine, whatever be his stage or station in medical life.

This new edition, soon to appear, is the result of a thorough revision begun two years ago. In this work Professors J. Chalmers Da Costa and Edward Anthony Spitzka, who occupy, respectively, the chairs of Surgery and of Anatomy in the Jeffersonal Medical College of Philadelphia, have been associated. The possessor of the new "Gray" will have the best issue in which this superb book has ever appeared, and from the foregoing description it may be gathered that it will be a better and more useful book than ever before.

Among the remedies not so frequently employed for skin diseases nowadays as formerly is soap and water. There is less filthiness and the animal parasites (pediculi) of the head and body are not seen as often as in the days gone by. It is very rare to see a case of "Vagabond's disease" or pigmentation of the body due to lice. The disease may yet be seen in certain parts of Europe and Asia Minor where soap is unknown.

A common superstition which is entertained by practitioners of medicine is that either white precipitate ointment or that containing bisulphide of mercury is good for the treatment of skin diseases. This is true if the diseases are syphilitic.

PROCEEDINGS OF THE FORTY-THIRD ANNUAL MEETING OF THE MICHIGAN
STATE MEDICAL SOCIETY, HELD AT MANISTEE, JUNE 24 AND 25, 1908.

Council.

The first session of the Council of the Michigan State Medical Society was called to order by Vice-Chairman Dodge, at 3:00 P. M., June 23, 1908, at Elks' Temple, Manistee.

Present: Councilors Dodge, Dock, Willson, Seeley, Ennis, Spencer, and Haughey, President Ostrander and Secretary Schenck.

The minutes of the last meeting were read and approved.

Secretary reported a communication from Councilor Bulson to the effect that he would be unable to attend the meeting, owing to illness in the family.

In the Annual Report of the Council to the House of Delegates by Vice Chairman Dodge, besides reporting the financial standing of the society, extended recommendations were made on the following subjects: Membership, Appointment of Vice-Chairman, Election of Secretary-Editor and Treasurer, The Journal, County Societies, Post Graduate Studies, District Meetings, Contract Practice, State Defense League, Date of Annual Meeting, Councilors' Expenses, Directory of the A. M. A., Honorary Members, Enforcement of Medical Practice Act, and an hour for a session of county secretaries at the annual state meeting.

The above report, submitted by Vice-Chairman Dodge, after being discussed and adopted section by section, was upon motion by Dr. Dock, supported by Dr. Haughey, adopted as a whole.

Dr. Spencer reported that Kent County Medical Society desired the name of Dr. J. A. Mulhern of Grand Rapids to be placed in nomination for honorary membership, and moved that the Council make the recommendation to the House of Delegates.

Supported by Dr. Dock, and carried.

A recess was taken until Wednesday, June 24.

The second session of the Council, Michigan State Medical Society, was held June 24, 1908.

Dr. Walter R. Parker appeared before the meeting and requested that the Council consider the advisability of allowing from the funds of the

State Society a sufficient amount to cover the expense of the necessary postage used by him in his work in endeavoring to promote the examination of the eyes and ears of school children throughout Michigan.

The request was received and taken under advisement.

As no business had been referred to the Council from the House of Delegates, adjourned to meet on the day following.

The third session of the Council was called to order by Vice-Chairman Dodge at 9:00 A. M., June 25, 1908.

Present: Councilors Dodge, Spencer, Rockwell, Willson, Ennis, Seeley, and Haughey; President Ostrander and Secretary Schenck.

The minutes of the last two sessions were read and approved.

Secretary reported that the recommendation of the Council in regard to obtaining a list of the registered practicing physicians in Michigan from the State Board of Registration was referred back from the House of Delegates with the recommendation that the Secretary of the Council correspond with the Secretary of the State Board and ascertain as to the facts. Secretary asked permission for Dr. Alvord, member of the Board, to address the Council on the subject, which was granted.

Dr. Alvord stated that the Board could not give a list of the registered physicians but could give information as to whether a certain doctor was licensed to practice in Michigan.

The whole question as discussed in the Council's report and at the House of Delegates seemed to have arisen through a confusion of the words "registration" and "license." It is impossible for any absolute record of registration with county clerks to be kept, because the clerks do not keep the Board of Registration (Licensing Board) informed as to the latest additions; nor is such a list very valuable. In any individual case the important point to ascertain is whether or not a practitioner is licensed, and this information the State Board is prepared to give in every in-

stance. An individual cannot register until he is licensed. If licensed, registration is a simple matter. No prosecution should be attempted against a man if he is licensed, even though he has not gone through the form of registering with the county clerk.

An account of \$15 expended by the committee on the Patent Medicine Evil was ordered paid.

Secretary Schenck reported that on the previous evening an informal meeting of the eight county secretaries present was held on the boat to discuss the advisability of holding a meeting in the City of Detroit some time during the coming fall, of all county secretaries in this state as well as members of the Council and General Secretary. Great enthusiasm prevailed at this meeting and it was the unanimous opinion of all those present that such a meeting in September be held, if arrangements could be made for their entertainment at Detroit.

Whereupon Dr. Willson moved that the Council endorse the idea of a meeting in September next of county secretaries and authorize the General Secretary to draw upon the Society for sufficient funds to meet the necessary expense of entertainment.

Supported by Dr. Rockwell, and carried.

Moved by Dr. Haughey that the present Chairman of the Council, Dr. C. B. Burr, be re-elected for the ensuing year.

Supported by Dr. Willson and carried.

Moved by Dr. Willson, that Dr. Dodge, the present Vice-Chairman, be re-elected for the ensuing year.

Supported by Dr. Haughey and carried.

Moved by Dr. Willson, that Dr. Haughey be re-elected Secretary for the ensuing year.

Supported by Dr. Rockwell and carried.

Moved by Dr. Willson, that the Secretary of the Council be allowed fifty dollars for the expenses of his office and fifty dollars for stenographer of the Council for the ensuing year.

Supported by Dr. Rockwell and carried.

Dr. Ostrander, the retiring President of the Society made a few remarks to the Council in appreciation of the support which had been given him during the past year.

Moved by Dr. Willson that the Council adjourn. Supported by Dr. Haughey and carried.

W. H. HAUGHEY,

Secretary of Council.

House of Delegates.

The first session of the House of Delegates was called to order by President Ostrander, at 8:00 P. M. June 23, at Elks' Temple, Manistee, a large number of Delegates being present.

(2) Roll call was dispensed with.

(3) The minutes of the last meeting were read by the Secretary and approved.

(4) The Report of the Council was read by Dr. W. T. Dodge, Big Rapids, Vice-Chairman.

Moved by Dr. Hirschman, Wayne, that the Report of the Council be accepted and the various recommendations be referred to a Business Committee to be appointed by the Chair later in the evening.

Motion supported and carried.

(5) The Report of Committee on Legislation and Public Policy, W. H. Sawyer, Hillsdale, Chairman, was read by the Secretary.

Dr. Robbins, Wayne, moved that the report be accepted and referred to the Secretary for incorporation in the minutes.

Motion supported and carried.

(6) Report of National Legislative Council, A. M. A., Flemming Carrow, Detroit, Michigan Member.

Dr. Gubbins, Calhoun, moved the adoption of the report.

Supported and carried.

(7) The Report of Committee to Encourage the Systematic Examination of the Eyes and Ears of School Children Throughout the State was read by Walter R. Parker, Detroit, Chairman.

Dr. Hirschman, Wayne, moved that the report be accepted.

Motion supported and carried.

(8) Nominations for Committee on Nominations were made from the floor as follows:

J. M. Livingston, Schoolcraft.

W. J. DuBois, Kent.

J. H. Crosby, Kalamazoo.

C. T. Southworth, Monroe.

W. J. Kay, Lapeer.

Moved by Dr. Hirschman, Wayne, that the Secretary cast the ballot of the House for the five gentlemen nominated.

Motion supported and carried.

Secretary cast the unanimous ballot of the House and the above-named committee were de-

clared elected.

Chair appointed the following as the Business Committee:

F. W. Robbins, Wayne.
L. J. Hirschman, Wayne.
G. J. Dickinson, Chippewa.
J. D. Brooks, Kent.
W. C. Garvin, Tuscola.

Dr. Robbins, Wayne, proposed the following change to the By-Laws, Section 5, Chap XIV., by omitting all between the word "physician" and the word "shall," the section reading thus: Each County Society shall judge of the qualifications of its own members; but as such societies are the only portals to this Society and to the American Medical Association, every reputable and legally licensed physician shall be entitled to membership. Before a Charter is issued to any County Society, full and ample notice and opportunity shall be given to every such physician in the County to become a member.

Laid over until the next session, under the rules.

House of Delegates adjourned to meet Wednesday morning at 9:00 o'clock.

Second Session.

The second session of the House of Delegates was called to order by President Ostrander at 9 A. M., June 24, at Elks Temple.

(1) The minutes of the previous session were read and approved.

(2) Report of the Committee on Study and Prevention of Tuberculosis was read by W. E. Coates, Onekama, Chairman.

Moved by Dr. Robbins, Wayne, that the report be accepted.

Motion supported and carried.

(3) On account of the absence of Dr. Hafford, Albion, Chairman, the report of the Committee on the Patent Medicine Evil was not given.

(4) Unfinished business.

The report of the Business Committee was read by the Chairman, Dr. Robbins, and the recommendations were acted upon separately.

"(Majority Report): We recommend that as an experimental meeting the next annual meeting of the society be held during the month of September, 1909.

(Minority Report, Dr. Brook in behalf of Kent

County): We recommend that the annual meeting be held in the spring months as heretofore."

Dr. DuBois, Kent, stated that in his opinion Kent County would have no objection to the holding of the next annual meeting in September merely as an experimental meeting.

Moved by Dr. Southworth, Monroe, that the recommendation of the Business Committee as shown in the majority report be accepted and adopted.

Supported by Dr. Hirschman. After considerable discussion the motion was carried.

"As to the list of practicing physicians legally registered in the state, it is recommended that the secretary of the Council be requested to communicate with the secretary of the State Board of Registration as to the alleged facts set forth in the Council's Report."

Moved by Dr. Hume, Shiawassee, that the recommendation be adopted. Supported by Dr. Southworth, Monroe.

After some discussion the motion was carried.

By Dr. Gubbins, Calhoun, That the House of Delegates recommend that the Committee on Legislation and Public Policy use their best efforts to have such legislation brought about that every physician practicing in a county will have to be registered in that county.

Motion received no support.

"We recommend that the name of Dr. J. A. Mulhern, of Grand Rapids, be placed on the honorary list."

Moved by Dr. Brook, Kent, that the recommendation be adopted. Motion supported and carried.

The proposed amendment to Chapter XIV., Section 5, of the By-Laws was brought to the attention of the House.

Dr. Robbins, Wayne, moved that the amendment be adopted. Dr. Hirschman supported the motion, and asked for a discussion so that all might thoroughly understand what it involves.

After discussions by Drs. Belknap, Berrien; Hume, Shiawassee; Rockwell, Kalamazoo; and Spencer, Kent, and others, the amendment was carried.

Dr. Robbins, Chairman of the Business Committee, stated that the committee has under advisement the matter of Medical Defense League referred to it from the Council, but as yet were not prepared to report.

Dr. Belknap, Berrien, moved to reconsider

the vote by which the amendment to Chap. XIV, Section 5, of the By-Laws was adopted. Motion supported and carried.

Dr. DuBois, Kent, moved that the wording of the amendment be changed to "legally registered practitioners of medicine" instead of "licensed physicians."

Motion supported by Dr. Robbins, Wayne. Carried.

The amendment as amended was then put to vote and carried.

Dr. Leartus Connor, Wayne, addressed the House of Delegates and asked for an expression as to how much ophthalmology is useful to the family physician.

No action taken.

Dr. Haughey, Calhoun, in behalf of the Battle Creek Industrial Association, extended an invitation to the society to meet in Battle Creek in 1909.

Dr. Butler, Kalamazoo, in behalf of the Kalamazoo Commercial Club and the Kalamazoo Academy of Medicine, extended an invitation to the society to meet in Kalamazoo in 1909.

Dr. Robbins, Wayne, moved to adjourn. Carried.

Third Session.

The third session of the House of Delegates was called to order by President Ostrander at 8 A. M., Thursday, June 25.

The minutes of the previous session were read and approved.

The report of the Committee on Nominations was read by Dr. Livingston, Schoolcraft, Chairman.

"Your Committee on Nominations have the honor to report as follows:

For First Vice-President, Dr. J. W. Bosman, Kalamazoo.

For Second Vice-President, Dr. J. A. Christenson, Manistee.

For Third Vice-President, Dr. Sarah Chase, Traverse City.

For Fourth Vice-President, Dr. J. D. Bruce, Saginaw.

For representatives in the House of Delegates, A. M. A., for one year: Dr. A. M. Hume, Owosso, and Dr. T. A. Felch, Ishpeming. For two years: Dr. F. W. Robbins, Detroit, and Dr. Schuyler C. Graves, Grand Rapids.

For Alternate Delegates for two years: Dr.

A. W. Crane, Kalamazoo; Dr. H. E. Randall, Lapeer.

Your committee desire, after due consideration of various places throughout the state, to recommend that our next annual meeting be held in the city of Kalamazoo."

All of which is respectfully submitted."

Dr. Belknap, Berrien, moved that the report of the committee be accepted and adopted. Supported and carried.

Report of Committee on Venereal Prophylaxis, A. P. Biddle, Detroit, Chairman, was read by the Secretary.

Moved by Dr. Belknap, Berrien, that the report of committee be accepted and made a matter of record. Supported and carried.

Dr. Robbins, Wayne, Chairman of the Business Committee, offered the following recommendation:

"In regard to the matter of Medical Defense League, referred to the House of Delegates by the Council, your committee feel that much more time is necessary before it would be willing to make any general recommendation, and would recommend that a committee of five be appointed from the Chair to study the question of medical defense throughout the state."

Moved by Dr. Belknap, Berrien, that the report be accepted and adopted. Motion supported and carried.

Chair announced that such appointment would be made later and the Secretary notified.

Dr. Leartus Connor, Wayne, offered the following resolutions:

WHEREAS, Michigan now has three classes of medical practitioners, viz.: (1) the family physician (general practitioners), (2) the specialist, (3) remnants, as opticians, osteopaths, Christian Scientists, etc. (all persons devoid of adequate training for the duties of physicians);

WHEREAS, Among the remnants are the opticians, who live on the cases of refractive defects neglected by the family doctor and specialist;

WHEREAS, It is discreditable to the medical profession and harmful to the people that any part of medical practice fall into the hands of unqualified persons;

WHEREAS, It being a physical impossibility for the fully trained ophthalmologist to care for all this neglected class, it remains for the family physician to qualify himself to recognize and treat the simple cases (as he does in all the other specialties), seeking expert aid as emergency calls for it, if the medical profession is to occupy its entire field. Therefore be it

Resolved, That the Councilors of the Michigan State Medical Society be directed to take this matter up in their several county societies and so educate their constituents that between the family physician and the ophthalmologist the needs of all the people be fairly and fully met.

Resolved, That the Council request the Michigan State Board of Registration (1) to place among its requirements for a license to practice medicine in Michigan a practical demonstration by the applicant of his ability to recognize and treat simply presbyopia, simply myopia, and simply hyperopia; to recognize and treat the infectious diseases of the eye and the diseases of the uveal tract, and (2) that it co-operate with our Legislation and Public Policy Committee in all practical efforts to prevent an enactment by the Michigan Legislature of a law giving opticians the legal right to practice ophthalmology in Michigan.

Moved by Dr. Robbins, Wayne, that the resolutions be adopted. Supported by Dr. DuBois, Kent, and carried.

Dr. DuBois, Kent, offered the following as an amendment to the By-Laws:

"No paper shall be read by title nor read by any other person than its author, except as result of sickness of author or by unanimous vote of the section to which it belongs."

Laid over under the rules.

Several bills for actual expenses of the Councilors were presented and on motion of Dr. Southworth, Monroe, supported by Dr. DuBois, Kent, were allowed.

Moved by Dr. DuBois, Kent, that the House adjourn.

Adjourned *sine die*.

B. R. SCHENCK.
Secretary.

Society in General Session.

The first session of the forty-third annual meeting of the Michigan State Medical Society was called to order by President Ostrander at 10:30 Wednesday morning, June 24, 1908, at Elks Temple, Manistee.

(1) The meeting was opened by prayer by Rev. J. J. Staley:

Almighty God, our creator and our preserver, Thou who art the giver of life and the preserver of souls, we look to Thee at this hour and regis-

ter our heartfelt thanks to Thee. As we look back upon the past and see what has been accomplished and as we look forward to the future with hope in our hearts that there will be a time when there will be no more sorrow, no more tears, and no more pain, we pray that Thou wilt command Thy spirit to be with these, Thy servants, at this meeting. We pray that their deliberations may be attended by the spirit of God. We pray that all their thoughts and conduct may be made profitable and that they may continue in the will of God and the realization that they are working together with the Almighty. Grant, we pray Thee, that there may come a time when there will be no more sickness, but during the time when we shall need their ministrations, grant that they may administer wisely. We pray in body, mind and spirit that all things shall be in perfect harmony with the will of Almighty God, so that Thy Kingdom shall come, Thy will be done on earth as it is in heaven. We ask this in the name of the Redeemer. Amen.

(2) The mayor of Manistee was unavoidably absent and was therefore unable to welcome the society in behalf of the City of Manistee.

(3) Address of welcome on behalf of the medical profession, was given by Dr. J. A. Christenson, president Manistee County Medical Society.

The city of Manistee has during the past year had the pleasure and honor of entertaining conventions representing various professions and trades, but never in the history of the city has such a distinguished body of men as the members of the Michigan State Medical Society been represented, which is one of the grandest professions to which man is called, because there is no profession where the field of usefulness is so wide as the practice of medicine and surgery. What is greater than to be able to relieve suffering humanity? There seems to be no limit to original research work, and at this meeting we are promised several papers along these lines in both medicines and surgery.

The Michigan State Medical Society meets for its forty-third annual convention. The objects of these conventions are two-fold—educational and social. Some members place all importance on the educational part while others will lay all stress on the social features. Mr. President, I believe that both of these features play an equal part in making the meetings of the Michigan State Medical Society a success. You have brought with you from various parts of the state the educational features. The members of the

Manistee County Medical Society will endeavor to supply the social part. How well we have succeeded you will be better able to say when you return from the barbecue this afternoon. The golden calf has been butchered and prepared, and all things are in readiness for you to eat, drink and be merry, for tomorrow, providing you are still alive, you will return to your respective homes again feeling well repaid for the sacrifice you have made in turning over your practice to the other fellow in your home town for a few days.

We doctors in the northern part of the state do not have the opportunity to listen to medical papers that you have who live near the medical centers of Ann Arbor, Detroit and Grand Rapids, and we will be given a treat in being privileged to listen to the papers here.

In Manistee we have no million-dollar hospital, no medical college, nor do we have a county society numbering two or three hundred members, but we do feel proud of the fact that we have a county medical society of twenty members, every member of which is considered, both here in Manistee and throughout the state, as a "live wire," as you will no doubt learn before we are through with you. We have a model and well-equipped hospital where during the past year eighty-seven major operations have been performed, more than three hundred medical cases treated, and four thousand four hundred and thirty-three salt baths have been given; also in connection with the Briney Inn five thousand and sixty-five salt baths have been given. The curative powers of the salt bath is no longer an experiment, it is a proven fact. These two bath establishments extend to every doctor visiting our city an invitation to inspect their salt bath institutions and also a hearty invitation to partake of a salt bath if you find yourselves in need of a wet or salt bath before you leave.

Fifteen miles north of us, at Onkama, is a sanitarium for the treatment of tuberculosis. Dr. W. E. Coates, the founder of this institution extends an invitation to every doctor to visit it.

The members of the local committee with Dr. James A. King, as chairman, the committee of Elks and citizens in general have spared neither time, nor money in making this medical convention a grand success. If things are not to your liking, do not blame Dr. King for he has worked, and planned, and dreamed of this meeting for several months.

Mr. President, members of the Michigan State

Medical Society, in behalf of the Manistee County Medical Society, I wish to extend you a hearty welcome and invite you to partake of our hospitality while in the city.

(4) The Report from the House of Delegates was read by Dr. Schenck, Secretary.

(5) Address of the President was read by Dr. Herman Ostrander, Kalamazoo. Subject: "Problems of Preventive Medicine."

This address was enthusiastically received.

(6) Dr. Carstens, Detroit, placed in nomination for President for the ensuing year the name of Dr. A. I. Lawbaugh, of Calumet.

This nomination was enthusiastically supported by Drs. Dock, Ann Arbor; Dodge, Big Rapids, and Abrams, Dollar Bay.

Moved by Dr. Carstens that nominations be closed. Motion supported and carried.

Dr. Hirschman, Wayne, moved that the Secretary be instructed to cast the unanimous ballot of the association for Dr. Lawbaugh for president for the ensuing year.

Ruled as contrary to the Constitution.

Meeting adjourned to meet June 25, at 11 a. m.

Second Session.

The second session of the Michigan State Medical Society was called to order by President Ostrander, at 11:00 a. m., Thursday, June 25, 1908.

The report from the House of Delegates was read by the Secretary and approved.

Address of guest of honor, Dr. J. C. Bloodgood, Associate Professor of Surgery, Johns Hopkins University, Baltimore, Md.

Subject: "The Larger Field in Medicine."

By Dr. Dock, Ann Arbor: "At this meeting we have had the honor of being addressed by two gentlemen who have come from some distance to be with us. These addresses have been of unusual importance. Yesterday we had the scientific and highly interesting paper of Dr. Hugh T. Patrick, of Chicago, and this morning we have this extremely stimulating and highly practical address of Dr. Bloodgood, of Baltimore. I therefore would like to move you, sir, that we express our thanks to these gentlemen by a rising vote." Supported and carried unanimously.

By Dr. Hirschman, Wayne: "It is fitting and proper for this association to give some expression of their appreciation to the physicians of Manistee for the royal manner in which the society has been entertained and the beautiful ar-

rangements that have been made for our comfort in every particular; and I move that this society extend a rising vote of thanks to the profession of Manistee for the way in which we have been treated here." Motion supported and carried unanimously.

By Dr. Vaughan, Ann Arbor: "All the good things have not been done by the doctors of Manistee alone, and I move that in addition we extend a vote of thanks to the good people of Manistee, whether in the profession or out of the profession, who have done so much for our entertainment while here." Motion supported and carried unanimously.

Dr. Livingston, Schoolcraft, Chairman of Committee on Nominations, reported as follows:

Your Committee on Nominations desire to report as the result of the official ballot for President of the Michigan State Medical Society for the ensuing year as follows:

Whole number of votes cast, 154, of which 154 ballots were cast for Dr. A. I. Lawbaugh, of Calumet.

Chair appointed Dr. Leartus Connor, an ex-president of the society, to escort Dr. Lawbaugh to the chair, after which Dr. Lawbaugh made a few remarks of acceptance.

On motion the meeting adjourned *sine die*.

B. R. SCHENCK,

Secretary.

Section Elections.

The election of officers for the sections resulted in the choice of Dr. W. M. Donald, of Detroit, as chairman of the Medical Section; Dr. L. J. Hirschman, of Detroit, as chairman of the Surgical Section; Dr. F. C. Warnshuis, of Grand Rapids, as chairman of the Section on Gynecology and Obstetrics.

(Secretaries of sections were elected in 1907 for two years, and therefore retain their offices until the Kalamazoo meeting in 1909.)

Annual Report of the Council to the House of Delegates.

The year 1907 was the most successful of any in the history of the Society, so far as relates to the character of scientific work performed in our component county societies, and in the district and state meetings. It also placed the Society in a satisfactory financial position and closed with the largest paid up membership we have ever enrolled.

Membership—Our membership on June 1st, 1908, numbers 2,074. This includes all living members who paid their dues in 1907, and the new members received this year. The total paid membership for 1907 was 1973, while for 1906 the number was 1,873.

It is to be regretted that so large a number of members are dropped from the roll each year for non-payment. This list numbered 178 names. The cause of this lies in the county societies and particularly with the local secretaries. There are many societies who never lose a member except from removal or death, and this record should be equalled by all our counties.

Vice-Chairman, Secretary, Editor and Treasurer—The able chairman of the Council, anticipating his prolonged absence from the state, requested the Council at the January meeting to choose a vice-chairman. W. T. Dodge, of the eleventh district, was chosen.

Taking advantage of the absence of our chairman, Dr. C. B. Burr, who is enjoying a well-earned rest in Europe, the Council expresses its appreciation of the able and disinterested services rendered by him to the cause of medical organization. His fine executive ability has been freely placed at the disposal of the State Society. His genial, kind and courtly manner has endeared him to all who have long been associated with him on the Council, and the best wishes of his confreres went with him on his journey. We hope that he may return from his vacation refreshed for his work, and that he may long continue to direct the energies of the councillor body.

Our able Secretary, Editor and Treasurer were unanimously re-elected at the annual meeting of the Council in January.

Finances—

The receipts for 1907 were:

From dues.....	\$3,885.75
Advertising (gross).....	2,158.92
Miscellaneous sources	26.55
	<hr/>
	\$6,071.22

Disbursements—

Journal expenses.....	\$4,193.06
State Society expenses.....	924.71
	<hr/>
	\$5,117.77
Balance profit for year.....	\$ 953.45
Bal. on hand Jan. 1, 1907.....	1,227.03
	<hr/>

Net balance Jan. 1, 1908.....\$2,180.53

A comparative tabulation for several years gives the following result:

RECEIPTS.

	1904.	1905.	1906.	1907.
Dues	\$3,282.50	\$3,604.52	\$3,290.29	\$3,885.75
Advertising	2,025.92	2,005.30	2,297.78	2,158.92
Miscellaneous	36.18	16.32	25.81	26.55
Total	\$5,344.60	\$5,626.14	\$5,613.88	\$6,071.22

EXPENDITURE AND PROFIT.

	1904.	1905.	1906.	1907.
Printing Journal		\$3,033.45	\$2,791.95	\$2,719.15
Postage, Mailing Journal.....		77.70	51.50	42.00
Total Journal Expenses.....		4,265.26	4,092.94	4,193.06
Expense Acct. Society.....		772.42	1,499.32	924.71
Total Expense.....	\$5,224.91	\$5,037.68	\$5,592.26	\$5,117.77
Profit	\$124.69	\$588.46	\$21.62	\$953.45

DETAILED FINANCIAL REPORT.

The following statement covers all transactions from January 1, 1907, to January 1, 1908:

Cash in the Treasurer's hands, January 1, 1907\$1,227.03

Receipts.

Dues	\$3,885.75
Advertising (gross)	2,158.92
Blanks to County Secretaries...	1.70
Subscriptions, Journals sold.....	8.85
McCormack reprints	4.00
Refund, Mich. State Pas. Ass'n..	12.00
	<u>6,071.22</u>
	\$7,298.30

Disbursements.

Journal—	
Printing Journal	\$2,719.15
Mailing (address, put in envl.)	42.00
Postage (2c Detroit members)	95.52
Postage (2nd class, members outside Detroit)	83.73
Salary, editor	300.00
Salary, associate editor.....	287.50
Mailing list	53.25
Adv. commissions, 20% gross.	431.78
Postage	32.35
Office help	60.00
Envel. for Journal (35,000)...	61.25
Printing, stationery, office sup.	9.75
Exchange at bank.....	7.88
Binding	8.20
Telegrams and express.....	.70
	<u>\$4,193.06</u>

State Society—

Saginaw meeting.....	\$ 70.00
Printing and mailing programs	56.55
Postage	32.35
Office help.....	60.00
Salary, secretary.....	300.00
Exchange at bank.....	7.87
Telephone, telegrams, express	4.70
Print., stat., office supplies....	58.45
Secretary of Council.....	50.00
Stenographer of Council.....	50.00
Mich. State Pass. Assoc.....	12.00
Council meeting, Jan., 1907...	15.70
Testimonial	100.00
Com. on Contract Practice....	13.89
Com. on Tuberculosis.....	37.25
Com. on Scientific Work.....	5.20
Mimeograph	16.00
Secretary's expense to State and County meetings.....	15.75
Reprints, McCormack lecture...	19.00
	<u>\$ 924.71</u>

Total expenditure.....	\$5,117.77
Cash in Treasurer's hands, January 1, 1908.....	2,180.53
	<u>\$7,298.30</u>

The Journal.—With pride we call attention to the Journal of the society, which has each year, we believe, improved upon the preceding year. As the society becomes stronger numerically and financially, the Journal will continue to improve. It should represent the best thoughts of the profession in the state, and the membership should

always bear in mind that its Journal but represents the character of the scientific work done at our county, district and state gatherings. If any member thinks that the articles printed therein lack in force and scientific interest, he should aid in correcting the defect by himself contributing to his County Society something of real interest to the profession.

The Journal is the medium through which the intelligence of our profession should speak to the world, and it may be taken as a fair index of the average culture and ability of our members. The work of the Council on Pharmacy and Chemistry of the A. M. A. has made it possible to eliminate many objectionable advertisements. While this has reduced our revenue, it increases our sense of self-respect. Among the list of advertisements dropped during the year are Dioxogen, Hydroleine, Pepto Mangan, Tyree's Powder, Listerine and Ureseptin.

County Societies.—In general, the strong societies have been growing stronger and the weak ones weaker. A few consolidations have been made, and on the whole the standing of the societies is satisfactory.

To provide for missionary work, the council at the January meeting made an appropriation of \$200, to be expended by the Committee on County Societies, with the approval of the chairman of the council, in visiting weak societies; it being understood that any member of the society may be called upon by the committee to make these visits, his expenses to be paid out of this appropriation. So far nothing has been expended from this fund.

Post Graduate Study Clubs.—Many of our societies have established clubs for post-graduate study, as recommended by Dr. McCormack, and it is needless to say that all such societies are in a flourishing condition.

District Meetings.—A large number of district meetings were held during the year. The First District held a successful meeting in Detroit on March 29, closing with a banquet, which was rendered memorable by eloquent after-dinner speeches by members of the profession, bar and clergy.

The Second District held a meeting in December, at Jackson, with a scientific program in the afternoon, closing with a banquet in the evening, which was participated in by influential members of the laity.

The Fifth District meeting, held at Grand

Rapids, was largely attended, and was addressed by Dr. Ochsner and Dr. Denslow Lewis, of Chicago. The social features of the meeting were attractive.

The Seventh District held its meeting at Bad Axe, in October, with a scientific afternoon session and the customary evening banquet.

The Eighth District held a meeting December 10, 1907, at Saginaw, which was highly interesting from a scientific and social point of view, the closing feature being a banquet at the Saginaw Club.

The Eleventh District meeting at Muskegon was a very pleasant gathering, with full attendance. A high scientific spirit prevailed and the local profession distinguished themselves in the way of entertainment.

The Twelfth District held three meetings during the year, at Schoolcraft, Marquette and Houghton. All of them were largely attended and presented the highly scientific programs and agreeable social functions for which the Upper Peninsula is famous.

The president of the society, Dr. Ostrander, attended many of the district meetings and did much to make them successful.

Contract Practice.—The evils of contract practice have been many times brought to the attention of the society. Two counties have adopted a new method of dealing with the subject, so far as relates to county poor work, and their plan deserves consideration and special mention. The county societies of Wexford and Tuscola have contracted with their Boards of Supervisors to do the poor work for a fixed sum, an amount in each case nearer the real value of the services performed than either county had paid before. The work has been divided among the members of the societies, and our reports are that the plan has proved highly satisfactory to the members. This form of contract practice, when all the physicians join in an agreeable arrangement, is to be commended.

The competitive system, in which the worthy poor are turned over to the tender mercies of the lowest bidder, oftentimes a cheap and incompetent man, is to be condemned, and is to be fought by all self-respecting physicians. The lodge contract business is demoralizing to the profession and should be strongly condemned by our society.

State Defense League.—The Wayne County Society has for several years been conducting

a Defense League for its members. Willing to make it a state matter, a proposition has been submitted to the council to turn over to the State Society their defense funds, providing the society will assume the defense of their county members. The proposition has been referred to a special committee for consideration. It should be carefully considered by the House of Delegates. The experience of Wayne county demonstrates that medical defense can be furnished at much less cost than is charged by the companies doing this business. If adopted by the society it will necessitate increasing the dues, and for that reason the advisability of applying it to all our members is of doubtful expediency. The subject is referred to the House of Delegates without recommendation.

Date of Annual Meeting.—It has been suggested that in accordance with the practice of many states the date of our annual meeting can be changed to the fall months, so that our meeting will not come so near to that of the A. M. A. This suggestion is referred to the House of Delegates for consideration without recommendation.

Councilors' Expenses.—Since the organization of the society, excepting the first year, on account of the struggle to keep the finances in good condition, the members of the council have paid their own expenses in visiting societies in their districts, attending the annual meetings, etc. As the finances are now in satisfactory condition, the council by resolution requested its members to present to the House of Delegates bills for their actual expenses during the past year within the limitations provided by the constitution.

Directory of the A. M. A.—It is obvious to all who have given the matter consideration that the directory of physicians published by the A. M. A. is a purely commercial enterprise, entirely without value to medical organization. There was no crying need for a roster of American physicians. This had been provided by commercial houses. There is a need for a complete roster of all County Societies. This is not furnished by the A. M. A. directory, the second edition of which is now being prepared. A simple list of members of all county societies could be furnished by the A. M. A. at very small expense. The present directory forms an expensive volume, beyond the reach or interest of the masses of the profession.

It is no help to organization. We need the publication of a medical blue book containing names of members of county medical societies only. The following resolutions were adopted by the council at the annual meeting:

"We recommend that the House of Delegates adopt strong resolutions along this line, and that copies be sent to the secretaries of all State societies for consideration by their governing bodies.

"Where as, It is believed that to limit the publication of names in the directory of the American Medical Association to those holding membership in the County Medical Societies would greatly promote membership in their societies; and,

"Whereas, A directory publishing these names alone would be sufficient for the practical purposes of members of the association; and,

"Whereas, Other complete directories of physicians are in existence, which directories are available for the purposes of advertisers needing the larger list; therefore, be it

"Resolved, That in the opinion of the Council of the Michigan State Medical Society, the forthcoming new edition under the auspices of the American Medical Association should be a directory of its members only, and that the council strongly recommend the elimination of all other names therefrom.

"Resolved, That the secretary of the council be instructed to furnish a copy of these resolutions to the publishers of the directory, and to furnish therewith a transcript of the resolutions on the same subject approved by the House of Delegates of the Michigan State Medical Society, in 1905."

Honorary Members.—We recommend that the following resident of our state be elected to honorary membership: Dr. A. J. Mulhern, Grand Rapids.

Enforcement of Medical Practice Act.—In the attempts made in some of our counties to enforce the medical practice act serious obstacles have been encountered, arising from the difficulty in securing a list of the physicians licensed under the Chandler act, and its successors, and the counties in which they are registered. It has been held that a man registered in one county is entitled to practice in all the other counties in the state, and the State Board of Examiners is unprepared to furnish such lists.

This work should be done by the State Board,

but in the event of the board's continued failure to do so, we recommend that the council be authorized to do it. We also recommend that at the annual meeting an hour be set apart in the program for a meeting of the general secretary, the secretary of the council, and the county secretaries, to consider means for the better prosecution of the work of the society. (See proceedings of council.)

W. T. DODGE,
Vice-Chairman.

Report of Committee on Legislation and Public Policy.

Your Committee on Legislation and Public Policy has little to report. There having been no regular sessions of the state legislature during the past year, there was no change in the existing conditions in which the profession is interested.

The special committees have in charge the formulation and promotion of the betterments which have been proposed from time to time, and this committee has nothing to initiate. An amendment to the by-laws introduced last year defines the duty and purpose of the committee as follows:

"After any proposed legislation shall have been endorsed by the council, it shall be referred to the Committee on Legislation and Public Policy, which shall thereupon have it presented for passage at Lansing, and take such steps as may be deemed necessary to secure for it the united indorsement of the medical profession throughout the state, and to that end it shall be the duty of the secretary of this society, under direction of the Committee on Legislation and Public Policy, to have printed and issued to the various county societies, or to each member thereof, as the case may require, circular letters and letters of indorsement, to be addressed by physicians to their representatives at Lansing, asking for the passage of the legislation so approved."

This is a very important co-operation, and should be effective in preventing pernicious interference with existing laws and furthering the passage of righteous measures. Care should be exercised that this power is not resorted to too often, and only after serious consideration. Too aggressive a policy may even be harmful and bring the method into disrepute.

With the improvement of the standard of the medical men, the public are becoming more intelligent and consistent in matters pertaining to public health, and it is only necessary to wage a campaign of education to accomplish any needed reform. A healthy public sentiment is a thing to which appeal can always be made with safety and satisfaction, and to cultivate this is the greatest work of every man.

WALTER H. SAWYER,
Chairman.

Report of the National Legislative Council of the American Medical Association.

The National Legislative Council of the A. M. A., having representatives from each state, met in Chicago December 10, 11 and 12 last, and Dr. Reed, of Cincinnati, chairman, in his report gave us some very interesting matter for consideration, with the request that they be brought before the different county societies and the state societies.

In my report of last year I dealt somewhat at length upon the reorganization of the medical department of the United States army, and tried to draw a parallel between the standing and duties of our present medical corps and the Japanese medical corps. Our medical corps is not up to the prescribed number. It is a very difficult matter to get just such men as we want who are willing to enter the army and navy, particularly the army. It is a very difficult matter to get legislation regarding the standing of the medical corps of our standing army. A doctor in the army has no particular standing, and matters purely medical and hygienic are in the hands of the commanding line officers. That is, the medical department is never consulted as to the location of a hospital, a field hospital, or camp in the time of war. Generally the commanding general selects that himself. We have had some very poor selections of places for camps, which demonstrated clearly the inability of line officers to select suitable locations. We are trying to get a definite rank for medical officers in the army, so that the commanding general may not have the power to locate a camp without first consulting with his medical officer. We would have carried this legislation through the last congress had it not been killed by the arbitrary ruling of Speaker Cannon.

We are seeking to establish a corps of army nurses, women who shall be trained as our nurses

in the better hospitals are trained, establishing for them a rank in the army, regular pay, a certain length of service, and a time at which to be retired on a proper amount of salary. We already have the bill before congress and expect to prosecute it with vigor.

We are attempting to get a corps of efficient dentists for the navy. A number of deaths have occurred at the canal, the result of diseases which could have been managed and cured by well educated dental surgeons.

The hospital corps of the navy has been receiving attention. The navy today depends on a corps of 1,000 men and has but 800. No one seems to care to unite himself with the hospital corps of the navy, whereas it should be the choice of the different branches of service. The pay is small, there is practically no rank or standing in the navy above that of common soldier, and therefore we cannot get intelligent men to enlist in this service. We are working for improvement.

We want a uniform medical practice act. The different boards of medical registration throughout the United States find it very difficult to do business with each other, by correspondence or in meetings, where each state has its own particular law and where it differs so from its sister states. We would like to have the same requirements which are enforced in one state to be enforced in all the states. This would involve a change in our Reciprocity Act. This matter is being brought before congress.

I am very glad to be able to report Michigan's standing to be in advance of the requirements as set forth in the average medical practitioner act.

We are also trying to bring about a uniformity in the food and drug law. This is a very important matter, as nothing much can be accomplished until a uniformity has been established.

I have been requested as representative for Michigan to bring to your notice a bill, or at least to ask you to communicate with our legislature upon the subject of a vital statistics bill. This will be brought to your attention through our county societies this coming winter."

FLEMMING CARROW,

Michigan Member.

Report of the Committee to Encourage the Systematic Examination of the Eyes and Ears of School Children Throughout the State.

Your committee appointed to Encourage the Systematic Examination of the Eyes and Ears of School Children Throughout the State has the honor to make the following report:

With a view to determining to what extent the eyes and ears of the school children throughout the state were being examined, the following circular letter was sent to the Superintendent of Schools.

MICHIGAN STATE MEDICAL SOCIETY.

Herman Ostrander,
President.

R. B. Schenck,
Secretary.

Committee to Encourage the Systematic Examination of the Eyes and Ears of the School Children throughout the State.
Walter R. Parker, Chairman, Detroit.
Charles H. Baker, Bay City.
John R. Rogers, Grand Rapids.

912 Chamber of Commerce Bldg., Detroit, Mich.
Superintendent of Schools.

Dear Sir: In order to determine to what extent the eyes and ears of the school children throughout the state are being examined, the committee appointed by the State Medical Society is sending a copy of this letter to the Superintendent of Schools, and would respectfully request that you furnish the following information:

Are the eyes and ears of the children in the schools under your charge being examined by a teacher or physician?

Answer:

To what extent, and by whom?

Answer:

To what extent, in your judgment, are the pupils benefited by this examination?

Answer:

Very truly yours,

Cities of a population of 5,000 or more were selected and fifty-five letters were sent out. Fifty-two responses were received. Of these fifty-two, nineteen schools are being examined more or less systematically. In twelve examination is

being made by teachers, and in seven by physicians.

In answer to the third question, that is, relating to benefit secured, ten made no reply. Of the forty-two replies received, all agreed that the examinations should be made and that good results would be obtained.

This is a distinct gain over last year, when but five schools in the state were being examined.

Having no funds at our disposal, it is difficult to properly disseminate the literature on this subject. Then, too, it is a matter of education, and all educational movements are slow.

Four states, Vermont, Massachusetts, Rhode Island and Connecticut, have state laws compelling the systematic examination of the eyes and ears of school children. Your committee has been unable to ascertain how practical these laws are or how well they are enforced. We are in communication with the educational authorities in these states, however, and another year should demonstrate the feasibility of the plan and enable your committee to make definite recommendations.

The most practical scheme for conducting the examination is that devised by Dr. Frank Allport, of Chicago. The regular Snellen Test Card is furnished, on which are printed instructions for its use, together with the following:

Facts to be Ascertained.

1. Does the pupil habitually suffer from inflamed lids or eyes?
 2. Does the pupil fail to read a majority of the letters in the number XX (20) line of Snellen's Test Types, with either eye?
 3. Do the eyes and head habitually grow weary and painful after study?
 4. Does the pupil appear to be cross-eyed?
 5. Does the pupil complain of earache in either ear?
 6. Does matter (pus) or a foul odor proceed from either ear?
 7. Does the pupil fail to hear an ordinary voice at twenty feet in a quiet room?
- Each ear should be tested by having the pupil hold his hand over first one ear, and then the other. The pupil should close his eyes during the test.
8. Is the pupil frequently subject to "colds in the head" and discharges from the nose and throat?

9. Is the pupil a habitual "mouth breather"?

If an affirmative answer is found to any of these questions, the pupil should be given a printed card of warning to be handed to the parent, which should read something like this:

Card of Warning to Parents.

After due consideration, it is believed that your child has some eye, ear, nose or throat disease, for which your family physician or specialist should be at once consulted. It is earnestly requested that this matter be not neglected.

Respectfully,

.....

School.

These cards can be procured from Almer Coe, 74 State street, Chicago, at a very moderate price.

It is important that the examiner, whether teacher or physician, should not sign the card of warning. This in all cases should be done by the principal and the card sent to the parents. If the examiners do the work for the children, or refer the scholar to certain physicians, professional jealousies are certain to be aroused, and this more than any one thing, unless it be the apathy of the teachers, has retarded the progress of this important work.

In order to emphasize the importance of these examinations, the following, taken from Dr. Allport's reports, are presented:

There are in the United States about 20,000,000 school children, of whom 16,000,000, 80 per cent, suffer from some eye, ear, nose or throat disease which can be easily detected and generally remedied if the public health and educational authorities will only decree that this work shall be done. The neglect in the past has been from ignorance of the facts; in the future, however, it must be from apathy or neglect.

Each year over 50,000 American children are removed from school on account of debilitated physical or nervous conditions brought on by physical incapacity and injudicious mental pressure. Such children, being unable to acquire a suitable education, fall by the wayside, grow up in invalidism and ignorance, and help to fill the ranks of weaklings, the worthless and the criminals.

Unfortunately many scholars suffer from headaches of greater or less severity, frequent attacks of vomiting, and extreme nervous debility due to eye strain, whose eyes appear to be well, and whose vision may be nearly normal. Then,

again, it is not unusual to find children whose vision is down to 40 or 50 per cent without parents or children ever suspecting it. This is common. If the hearing in both ears is defective, it is usually noticeable, but often the hearing in one ear may be low without detection.

It would seem almost unnecessary to produce an array of arguments with the object in view of convincing those having such matters in charge of the necessity of the annual and systematic examination of school children's eyes and ears, for all must admit the necessity of healthy eyes and ears for the ready acquirement of an education.

Respectfully submitted,

WALTER R. PARKER, *Chairman.*

CHARLES H. BAKER,

JOHN R. ROGERS,

Committee.

Report of the Committee on Venereal Prophylaxis.

Mr. President and Members of the House of Delegates of the Michigan State Medical Society:

Your special Committee on Venereal Prophylaxis respectfully submits the following report.

A very careful and serious consideration of the ways and means necessary to aid in the control of venereal diseases leads us to emphasize most emphatically the great need for wholesome education of the public concerning sexual hygiene and venereal diseases. That the time is propitious for the acceptance of such teachings by the public is tested by the favor and earnestness with which addresses delivered by invitation by members of this committee and by other members of the State Medical Society, and by physicians and lecturers all over this country and abroad are received; but a diversity of opinion exists as to the proper means of disseminating such knowledge. This education would ideally proceed from parent to child, but the ignorance of the parent upon such matters, even though of vital interest to the welfare of his offspring, and his inability or unwillingness to impart such knowledge, were it his, practically excludes this source of education. This diversity of opinion extends as to what extent such teachings should be given in the public school, even as to whether any publicity should be given such matters. While we all know that the earlier the age as to which such information may be safely imparted the more forcible and the more

lasting the impression. As to whom, and how, and where such knowledge should be imparted, are still debatable questions worthy of our further earnest consideration.

Your committee firmly believes that the time is not far distant when such matters will be taught without prejudice in the public schools; but for the present the campaign of education had best be presented by those familiar with the subject matter, and through them by those coming in contact with the people in a soberly, orderly manner, as by directors of gymnasiums of Young Men's and Young Women's Christian Associations, and of church societies; by authorized agents of boards of health and County Medical Societies; and by other persons, such as physicians and teachers, who are competent to give truthful instruction unprejudiced by their particular points of view. We believe that a proper knowledge of venereal diseases and sexual hygiene will appeal to spontaneous self interest, instead of to scrupulous self restraint, and will give, therefore, to the movement toward venereal health instinctive strength. To initiate the propagation of such sound and useful knowledge, it is desirable that medical students and physicians themselves be better informed regarding venereal diseases and sexual hygiene, and that the subject of sexual hygiene be given open-minded investigation by authoritative persons, so that false and harmful beliefs, fears and pretenses shall be destroyed. We believe that the real remedy for the scourge of venereal diseases is begun only when physicians and teachers seek to know, to practice and to teach the sexual welfare of the individual and the race unbiased by sentiment, timidity or mistaken scruple.

While we believe a successfully organized educational campaign, such as is now being conducted against tuberculosis, might be inaugurated, a lack of funds and lack of time to devote thereto make such a campaign inexpedient at the present time. It seems to us, therefore, that education by the means outlined above, the method varying with the needs of the particular locality, is the best to be expected at present. It is hoped, however, that in the not far distant future, when venereal health and disease are more freely discussed, the successful campaign against tuberculosis will be made to include a campaign against all other infectious diseases.

Now that the public is beginning to realize the danger of venereal infection to the wedded state, as shown by the recent enactments of

various legislatures, and to appreciate its right to self protection, we believe that it is within the province of this committee, acting in conjunction with your Committee on Legislation and Public Policy, to urge legislation making the marriage license depend upon compulsory physical examination; to urge legislation enforcing registration of all venereal diseases as communicable diseases dangerous to the public health, until the same is upon statute books and enforced.

It is most natural that the individual suffering from venereal infection should be led in his despair, and often false shame, by the alluring promises of quick cures, to seek the advice of the unscrupulous advertiser. Often the unfortunate is driven into unnecessary worry and into unnecessary operations by the exaggeration of the significance of purely functional phenomena. We would, therefore, be derelict in our duty did we not do all in our power to condemn and to prevent, in so far as possible, the improper and untruthful advertising still to be found in our daily press; for, while there has been much improvement in latter years, still cleaner sheets are desired. Nor would we be less derelict did we not, knowing the close relation of alcoholic intoxication to venereal disease, give aid and recognition to those working to lessen its evil influence by securing restrictions of the excessive use of alcohol.

In conclusion, your committee has to report with sincere regret and profound respect the removal from this committee by death of Dr. W. J. Herdman, and more recently of Dr. A. E. Carrier. The best tribute to these men is to worthily, and with their spirit, enthusiasm and courage, continue their good work.

Respectfully submitted,

A. P. BIDDLE, *Chairman.*

A. S. WARTHIN,

WM. E. BLODGETT.

COUNTY SECRETARIES' ASSOCIATION.

The work of reorganization of the entire medical profession has so far advanced that now practically every county in the United States has a County Medical Society, working in co-operation with its State Society and the American Medical Association. It is not necessary to describe the benefits that each member of the profession is

daily reaping as the result of this re-organization. The results are so self-evident that they are indisputable.

The organization being now complete, the question now arises, how and in what way can our County Societies accomplish their full duty in advancing the objects of this organization? The holding of our county meetings weekly, bi-monthly or quarterly and listening to a number of papers and discussions and the report of clinical cases is not sufficient. There is a tendency to become apathetic. The meetings begin to fail to arouse interest, the attendance diminishes, and the society leads a hum-drum existence utterly failing to fulfill its mission in its individual county.

In reading the reports of the various county societies as they appear in our journal, we pick out here and there a county that is alive and active. Its meetings are largely attended, its papers and discussions are timely, interesting and concise. A social feeling predominates. It is active, takes part in and dictates the medical policies in its individual community. It is up-to-date in the medical-civic questions of the day, and it is first in advancing and carrying out the recommendations of national committees. We consequently conclude that that is a thriving, vigorous county society.

What can be done in one county can, almost without exception, be done in every county. You naturally ask "How?" This question has been solved and satisfactorily answered by the states of Pennsylvania and Ohio. They are the pioneers in their efforts to increase the interests and usefulness of their county societies. Their method was to organize the secretaries of its various county societies into a secretaries' association and hold annual meetings.

The growth of a county society is chiefly due to the activity of its secretary. The secretary is the most important individual, he is the one who will make the society a success or a failure. If the society has a good secretary who does good work, it will be a live society, but if by mistake a poor secretary is selected, one who does not do good work, the members of the society will lose interest and a poor society results. The question then again arises, "In what way can we individually make our own society attain its fullest degree of perfection and usefulness?" and again you may ask, "How are we going to obtain better county secretaries?" It is proposed to solve

this question in Michigan by the organization of a Secretaries' Association.

It was the consensus of opinion of the secretaries in attendance at the state meeting held in Manistee, that the holding of an annual meeting for listening to the reading and discussions of papers on such subjects as programmes, dues, clinics, new members, social features, public meetings, bulletins, reading rooms, relationship to our state society and the numerous other questions that daily arise in discharging the duties of a county secretary, could not be aught but of incalculable value to every secretary. Listening to papers and discussions of our brother secretaries and learning how they overcome the difficulties and problems of their office cannot help but make better secretaries, and the application of these new ideas gleaned from these meetings, will in turn result in better and more active county societies.

Dr. Simmons, secretary of the American Medical Association, stated, at the last meeting of the Pennsylvania Secretaries' Association, that "Among the various plans for upbuilding the organization none are more important than meetings of county secretaries for the discussion of those subjects connected with the successful performance of their duties as secretaries."

In compliance with the sentiments expressed by the secretaries present at Manistee, Dr. B. R. Schenck, our state secretary, has appointed Dr. F. C. Warnshuis, of Grand Rapids, and Dr. G. F. Inch, of Kalamazoo, as a committee to arrange for a meeting to be held in Detroit during the latter part of September or the first part of October. This committee has mailed a letter to every secretary in the state, and it is hoped that those who have not answered will make it a point to do so at once. The exact date, the full programme, together with the entertainment features will appear in the next issue of the Journal. The committee will gladly entertain any opinions or suggestions that may be offered. The success of the meeting depends upon every individual secretary and this responsibility should not be overlooked. Bear the meeting in mind. Arrange your affairs so as to attend. You owe it to your own society, and to the profession of Michigan.

F. C. WARNSHUIS,

G. F. INCH,

Committee.

County Society News

Ottawa.

The June meeting of the Ottawa County Medical Society was held at Grand Haven.

Dr. J. A. Mabbs of Holland, read a paper on "What Cases Should Come Before a Coroner's Jury." Dr. W. S. Walkley of Grand Haven, opened the discussion.

Dr. A. T. Godfrey of Holland, read a paper on "The Value of Urinalysis in the Recognition of Disease." (To appear in the Journal.)

The annual picnic will be held the second Tuesday in August.

E. D. KREMERS, Sec'y.

President Roosevelt in accepting the presidency of the International Congress on Tuberculosis, wrote the following letter:

Sir:—

It is with great pleasure that I accept the presidency of the "International Congress on Tuberculosis," which is to meet in this city on Sept. 12, 1908. Official duties, however, may prevent my presiding at the initial meeting of the congress, in which case I will deputize Secretary Cortelyou.

The importance of the crusade against tuberculosis, in the interest of which this congress convenes, cannot be overestimated when it is realized that tuberculosis costs our country two hundred thousand lives a year, and the entire world a million lives a year, besides constituting a most serious handicap to material progress, prosperity and happiness, and being an enormous expense to society, most often in those walks of life where the burden is least bearable.

Science has demonstrated that this disease can be stamped out, but the rapidity and completeness with which this can be accomplished depend upon the promptness with which the new doctrines about tuberculosis can be inculcated into the minds of the people and engrafted upon our customs, habits and laws. The presence in our midst of representatives of world-wide workers in this magnificent cause gives an unusual opportunity for accelerating the educational part of the program.

The modern crusade against tuberculosis brings

hope and bright prospects of recovery to hundreds and thousands of victims of the disease, who under old teachings were abandoned to despair. The work of this congress will bring the results of the latest studies and investigations before the profession at large and place in the hands of our physicians all the newest and most approved methods of treating the disease—a knowledge which will add many years of valuable life to our people and will thereby increase our public wealth and happiness.

The International Congress on Tuberculosis is in the interest of universal peace. By joining in such a warfare against a common foe the peoples of the world are brought closer together and made to better realize the brotherhood of man; for a united interest against a common foe fosters universal friendship. Our country which is honored this year as the host of other nations in this great gathering of leaders and experts and as the custodian of the magnificent exhibit which will be set up by the entire world, should manifest its appreciation by giving the Congress a setting worthy of the cause, of our guests, and of ourselves. We should endeavor to make it the greatest and the most fruitful Congress which has yet been held, and I assure you of my interest and services to that end.

With expressions of appreciation for the compliment conferred in extending the invitation to become president of the Congress,

Very respectfully,

THEODORE ROOSEVELT.

News

The "Journal of the Oklahoma State Medical Association" is a new arrival in the field of state journalism. The first issue appeared last month. The editor is also state secretary, Dr. E. O. Barker, Guthrie.

The medical profession of Maryland have acquired an official organ for their State Society, the "Bulletin of the Medical and Chirurgical Faculty of Maryland," first issue in July, 1908. Dr. H. O. Reik, Baltimore, is the editor.

The Miami Medical College and the Medical College of Ohio have been merged into one institution. This is the eleventh merger in three

years, combining 23 colleges into nine larger and stronger ones.

Dr. R. S. Copeland, of the Homeopathic School of Medicine in Ann Arbor, has resigned, to accept the deanship of the New York Homeopathic College.

Dr. Jos. P. MacCarthy, of Kalamazoo, is attending summer school at Harvard University.

Since Jan. 1, in the District of Columbia, 43 persons have been bitten by dogs suffering from rabies. At the president's request the commissioners have ordered that all dogs in the district be muzzled for six months.

In Columbus, Ohio, a medical society has appointed a permanent committee on Social Hygiene, for the purpose of educating the people as to the far-reaching effects of the "Social Evil," by the dissemination of proper literature, and by members of the medical profession giving talks or lectures before various organizations to men, women, and youths.

Diphtheria is said to have been prevalent in Holland, and smallpox in East Fremont.

Dr. Oscar C. Breitenbach of Escanaba, has been elected president of the Michigan State Water Commission, a sub-committee to the Lake Michigan Water Commission. This commission is composed of surgeons from Michigan, Wisconsin, Illinois, the War Department, and the Public Health and Marine Hospital Service. Its purpose is to ascertain the existing conditions of the water supply; to study them with reference to pollutions and the means of purification; to investigate sewages of towns and cities which drain into Lake Michigan, and the lakes and streams which are tributary.

Dr. James C. Johnson has resigned the post of city physician of Adrian.

The Ionia and Montcalm County Medical Societies held a picnic at Baldwin Lake, Greenville, July 9, as guests of the Belding and Greenville fraternities. Ladies were included, and there were about fifty people in attendance.

Dr. H. A. Grube of Coldwater, has been appointed surgeon in the Soldiers' Home at Grand Rapids.

Dr. Everett Ulrich of Decatur, has accepted a position as ship's surgeon on one of the vessels of the Holland-American line.

Progress of Medical Science

MEDICINE.

Conducted by

T. B. COOLEY, M. D.

Periodic Vomiting.—ARKAWIN reviews briefly the more important literature regarding this interesting and much discussed symptom-complex, and gives a very clear idea of the prevailing theories regarding its nature and causes, without, however, attempting to go into the perplexing subject of the metabolic disturbances associated with acetonemia. From the first, hereditary influences have been recognized as of importance by almost every one who has discussed this subject, and this is the one point of general agreement. Ideas regarding the causes of the attacks are numerous, and widely different. Some consider this an independent disease—a metabolic disorder of uncertain origin—while more frequently it is thought to be merely a symptom. The acetonemia is believed by some to cause the vomiting; by others to be a result, and not pathognomonic. Many believe the condition to be a manifestation of latent hysteria; others consider it a symptom of chronic appendicitis, and cite numerous cases of recovery after removal of the appendix. Still others believe that gastro-intestinal disturbances are the fundamental cause. Each of these views is sustained by clinicians of wide experience and acute judgment, and it is difficult from the evidence at hand to form for oneself a definite opinion. The author inclines from his own experience to accept Heubner's classification of this among the diseases of the digestive organs, citing the tendency to obstipation in his cases, the improvement after the bowels were emptied, and the success attending diet therapy. He noted a decided neuropathic tendency in his patients, but could not detect in any tenderness at McBurney's point, nor was there any evidence of tapeworms, which are capable of causing various attacks of nervous character.

In treatment he recommends moderate diet, chiefly vegetable, at regular intervals, hydrotherapeutic measures, carbonic acid baths, and fresh air.—*Arch. f. Kinderheilkunde*, Vol. 48, p. 98.

Intestinal Fermentation and Test Meals.

SCHMIDT says that to diagnose intestinal starch fermentation from the results of the incubator test, one must have all the signs distinctly present: free gas-formation within 24 hours, lighter color, marked acidification, and pronounced butyric acid odor. In general it may be said that decided early fermentation of the feces after the test meal is only exceptionally and temporarily observed with normal digestion, and that feces fermentation is pathologic when it persists, produces symptoms, and is not relieved by reduction of the carbohydrates in the test meal. SCHMIDT makes use now of a "general test meal," more widely applicable in the polyclinic and in practice than those formerly proposed. The proposals of Zweig and Strauss, Einhorn, and others for simplifications of the test he rejects as founded on false principles.—*Deut. Arch. f. klin. Med.* Vol. 92, p. 471.

Fermentative Intestinal Indigestion.

H. MEYER records 16 cases corresponding almost completely in symptomatology with the Schmidt-Strassburg description. The cause lies in a secretory insufficiency of the glands of the small intestine, probably chiefly functional. This may occur as an independent disturbance, especially in neurasthenic or anemic subjects, or it may be the result of primary gastric disease. The richness of the chyme in starch leads to increased growth of the ferment organisms, such as the yeasts, and the formation of gases and organic acids irritates the intestinal mucous membrane, increasing motor activity and causing moderate diarrhea.

In prolonged cases inflammatory processes may obscure the picture. Treatment consists in diminishing or withdrawing carbohydrates. The true sugars are best tolerated of the carbohydrates, while the most disturbing are potatoes and fresh vegetables. Besides the diet therapy, treatment of the stomach by hydrochloric acid, lavage, etc., must not be forgotten.—*Deut. Arch. f. klin. Med.* Vol. 92, p. 452.

PATHOLOGY AND BACTERIOLOGY.

Conducted by

C. S. OAKMAN, M. D.

So-called Phlebitis of the Left Leg.—W. H. BUHLIG describes a case of phlebitis of the left leg occurring in a young man who had an undoubted appendicitis, but was not operated upon. The appendicitis was treated by "rest in bed, rectal enema at the start and then an absolute abstinence from all things by rectum or mouth, except teaspoonfuls of water occasionally." The temperature became normal in ten days, after which castor oil was given and feeding begun. On the tenth day the patient had pain in the lumbar region, temperature 102, pulse 124, with no localizing symptoms. The following day the left groin was painful and the upper half of the thigh swollen, 'shiny, and tense; pitting was not present. This condition slowly improved and finally disappeared without further complication.

Reasoning from this case, in the light of other cases and the various theories of the etiology, BUHLIG says that all conditions produced by actual operation and its preliminaries can be ruled out; and that bandages, sigmoid pressure, tumors, hot water bags, meteorism, general venous congestion, anemia, were all absent in this case and can be excluded as causative agents. It is probable that mere slowing of the blood current is not a cause of phlebitis, because in typical cases of impeded circulation, phlebitis is not a frequent occurrence. The most likely etiological factor is infection, and the author believes the avenue is by the lymphatics, through the lumbar lymph nodes, spreading downward after the manner of erysipelatous inflammations. —*Surgery, Gynecology, and Obstetrics*, July, 1908.

The Pathogenesis of Ganglia.—W. C. CLARK writes at length upon the etiology of the ganglia that occur typically on the dorsum of the wrist; he reviews the theories advanced by many men, with critical remarks, and a description of his own original investigations in the histo-pathology of ganglia and of synovial membrane. The causation of ganglia has been explained, first, as a hernia of the tendon sheath or a joint capsule, which later becomes closed off by some plastic inflammation; second, as fetal sequestration of synovial membrane; third, as occlusions of synovial crypts that occur in joints and tendon sheaths; fourth, as cystic degenerations de-

veloping in the connective tissue of sheaths and capsules; fifth, as anatomical or newly-formed bursae, distended because of simple inflammation. The author rejects the hernial theory, because ganglia rarely have a hernial neck and rarely connect with an adjacent synovial cavity; they are often multilocular, and they sometimes occur at a distance from synovial cavities. He also rejects the fetal inclusion idea, because of certain embryonic peculiarities of synovial development; the hypothesis of occluded crypts is possible, but improbable, because the ganglion is sometimes so far from the location of crypts; the theory of hydropic bursae cannot be refuted, as there are strong arguments in favor of it, but on the other hand all ganglia cannot form in this way, because bursae would hardly be multilocular, and would not be attached by a sessile base to capsules or sheaths; the explanation by cystic degeneration answers the majority of requirements, but still has some drawbacks. He concludes by saying that "ganglia are rarely hernial protrusions of synovial membranes, frequently distended anatomical or adventitious bursae, most frequently degeneration cysts."—*Surgery, Gynecology, and Obstetrics*, July, 1908.

An Experimental and Critical Study of the Etiology of Chronic Nephritis.—HAVEN EMERSON has conducted experiments on dogs, to determine the effects upon the kidney of puncture, injection of saline solution, adrenalin, and alcohol, and of intravenous injections of gelatin and adrenalin. Great pains were taken to use animals free from renal abnormalities. He concludes that the blood supply of the kidney can be impeded by chemical injury to the renal parenchyma; that a defective blood supply or vascular stagnation underlies many cases of nephritis; that the most frequent causes of circulatory errors are cardiac disease, bacterial toxins, and metabolic waste products; and finally that we might lessen the growing frequency of nephritis by efforts to check the occurrence of infectious diseases, and "to urge moderation in the habits of over-stimulation and over-work, which are prominent in present day life in large centers of population."—*Archives of Internal Medicine*, June, 1908.

NEUROLOGY.

Conducted by

C. W. HITCHCOCK, M. D.

The Epidemiology of Acute Poliomyelitis.—

The epidemiology of this disease is discussed by L. EMMET HOLT and F. B. BARTLETT, who have collected reports of some 35 epidemics prior to 1907, the earliest of which occurred in 1841—five occurring in Norway. The districts covered were large in extent,—the seasonal occurrence strikingly uniform, July, August and September being the most frequent months. As a rule the hygienic surroundings have been good,—but one epidemic occurring in a crowded community and amidst squalor. The association of this disease commonly with any other disease cannot be deduced from the evidence obtainable. Although commonly written of as a disease little dangerous to life, the total cases show a mortality of 12.1 per cent. The great majority of those attacked were under four years of age, but in epidemics more than at other times older children and adults are liable to attack. In an Australian epidemic of 108 cases, 11 were between 10 and 15. The small number and wide distribution of cases in most of the epidemics is striking. There are certain groups, however, which point strongly to either the communicability of the disease from one person to another or to a common source of infection. The conclusions reached are to this effect, viz.—that it is established beyond question that acute poliomyelitis is an infectious disease; that it remains an open question whether the disease is communicable, although these authors think it is, but only to a slight degree. "Positive statements, however, must be deferred until the discovery of the infectious agent."—*American Journ. Med Sciences*, May, '08.

Hysteria in Children.—As expressive of experience gained in the observation of a considerable number of cases, JOHN JENKS THOMAS reports some 24 cases of hysteria observed in children and discusses its various features. The cases in children were only 5.6 per cent of the total hysterias, a little over 0.1 per cent of all the neurological cases. A like heredity was

found in five cases. Impairment of resistance could be attributed to alcoholism in four cases. Trauma was the most frequent exciting cause. Direct suggestion seems to have played a causal part in some of the cases. The presence of stigmata is rare. Contraction of the field of vision was found twice; anesthesia and hyperesthesia were rare. Points of tenderness were found five times, contractures four times and flaccid paralysis, astasia, aphonia, tremor, each once. Tendon reflexes were often not disturbed, ankle clonus and Babinski's sign were not found at all.

As to infantile hysteria, Chaumier, its chief advocate, maintains that it exists in three forms (1) emotional, as in causeless rages; (2) faintings where infants, agitated and crying hard, suddenly become cyanotic and later relaxed and (3) convulsions, which are short and the only symptoms present.

Heredity, as a cause, this author asserts, rather begs the question, since suggestion is apt to play an important part. Alcohol and tuberculosis have been cited as predisposing causes and Mills includes neglect of physical health, hardship, climate and depleted condition of the blood. Lack of education and training in self-control are very properly mentioned as predisposing factors. The bad effect of parental sympathy and anxiety is frequently met with and is apt to be seen in the case of late and only children.

Very important in diagnosis is the effect of suggestion, sudden cures by this means being especially frequent in children, though intractable cases are not rare. Particularly desirable is the elimination of undue sympathy and solicitude. A second method of this same author, the method of surprise, is invoked to show that tasks heretofore beyond the patient's powers can now be accomplished, this tending to reestablish voluntary control. Sudden or stern commands sometimes serve a useful purpose to this end. Whatever the form of treatment, suggestion cannot be neglected.—*Jour. Nerv. and Mental Disease*, April, 1908.

LARYNGOLOGY.

Conducted by

J. E. GLEASON, M. D.

Concerning the Treatment of Hay Fever.—BERLINER uses the galvanic current for hay fever. His experience comprises in all only four cases which he treated daily during the first week, and afterward twice weekly. He uses two small electrodes upon the nasal mucous membrane, and continues the constant current with the strength of 5 milliamperes for about 5 minutes, upon the sensitive spots of the nose. Since his results were so good he recommends the method for further trial. This procedure is based upon the principle of reducing or completely doing away with, the hyper-sensitiveness of the nasal nerves.—*Deut. Med. Woch.*, 32-13.

The Helmholtz Method of Treatment of Hay Fever, Modified.—BOESSER gives his method of treatment as follows: As soon as the first eye symptom, the typical itching in the inner angle, appears in those disposed to hay fever, he applies to the conjunctiva a few drops of a 1% solution of corticin solution, the most soluble and powerful of all quinine preparations. The corticin is carried in the tears through the tear canals into the lower meatus, and from there into the throat. After a few minutes the burning pain in the eye stops together with the tendency to and paroxysms of sneezing. The effects last generally four to six hours, often longer. It works especially well in the evening before retiring. The patient wakes in the morning not with swollen and reddened eyes, but with them bright and clear. This method the author warmly recommends.—*Deut. Med. Woch.*, 32-43.

Concerning the Value of Sonderrmann's Suction Apparatus in the Diagnosis and Treatment of Nasal Diseases.—HONNETH has tried the Sonderrmann suction apparatus in two groups of nasal diseases, in manifest empyemas, where pus could be demonstrated coming from a sinus without suction, and in cases where there was a suspicion of empyema. In the latter it was demonstrated that when no pus presented as a result of suction as a matter of fact none existed. In the first group also suction gave excellent service in pointing out the exact diagnosis. The time saved in diagnosis is also no small feature. As a matter of therapeutics, the procedure favorably influences the acute inflammations of the sinuses, but as a means of healing a chronic supuration, it is of very little value.—*Mun. Med. Woch.*, 82-49.

Concerning the Favorable Influence of the Internal Use of Potassium Iodid in Tuberculosis of the Upper Air Passages.—GRUNBERG reports that in the Korner clinic for several years potassium iodid one to two grams daily had been used with good result in tuberculous diseases of the upper air passages, especially of the nose, palate, and throat, in addition to the usual local treatment. This is considered as an adjunct entirely, and in no way is specific. Six cases are described in detail. *Zeit. Fur. Ohrenheil*, 53-4.

Nasal Tamponade in Ozena.—SONDERMANN recommends for the removal of crusts in ozena the following simple method. A rubber bag in a compressed position is inserted by the patient into the nasal cavities, and inflated. This remains in position for 5 minutes after which time the air is allowed to escape, and the bag withdrawn. If part of the crusts remain, these can be easily blown out. During the first 8 days, the author recommends using this procedure twice daily. Later once a day suffices.—*Munch. Med. Woch.*, 53-49.

Contributions to the Question of Black Hairy Tongues.—According to AKUNEW there are to be differentiated, two kinds of black tongue. In the first form there is only a pathognomonic coloring of the tongue as a result of abnormal collection of pigment, a product of fungus growths (*Mucor Niger* and others), without local hypertrophy of the tongue papillae. In the second form of disease, for which alone really the name of hairy tongue is appropriate, the appearances of hypertrophy of the papillae filiformens stand out prominently. The brownish black pigmentation of the hypertrophied papillae depends, according to the author's extensive histo-chemical examination, upon the accumulation of an iron pigment in the hyperplastic horny cells. The therapy consists in the very thorough removal of the hypertrophied tongue papillae with a flat pair of scissors, which is done entirely painlessly and almost bloodlessly, followed by a daily pencilling with a 1 to 2% solution of iodine in glycerine. The result of the author's cases was very favorable, no recurrence took place in 45 years respectively for each case.—*Russ. Monatschr. für Ohren-Nasen & Halskrankungen*, 1907.